CHAIN OF CUSTODY RECORD

Mississippi Department of Environmental Quality
Office of Pollution Control Laboratory
1542 Old Whitfield Road
Pearl, MS 39208
Phone (601) 961-5701 Fax (601)961-5704

Project: US Tech

Location: NRO / (CRO) / SRO / Other _____ *(Circle one)*

Ship To: ☑ Pearl Laboratory ☐ OTHER _____

Sample Matrix:
1. Surface water 5. Sediment 9. Potable water
2. Ground water ~~6~~ Soil 10. Sludge
3. Wastewater 7. Fish tissue 11. Unsorted Benthic sample
4. Filtered chlorophyll-a 8. Leachate 12. Other

Samplers (Sign) A. Steven Bailey C. _____ B. _____ D. _____

enSPIRE # / Site # *(Print N/A if neither is known)*	Date 2014	Time (24 hr)	Sample matrix	Station Location/Description	Total # of Containers	Preservative: HCl	NaOH	HNO_3	H_2SO_4	$Na_2S_2O_3$	None		Lab Use Only:
	5/22	1210	6	52214 P A	1						✓		61999
	5/22	1206	6	52214 P B	1						✓		62000
	5/22	1206	6	52214 P BDUP	1						✓		62001
	5/22	1146	6	52214 P E	1						✓		62002
	5/22	1159 ~~1204~~	6	52214 P F	1						✓		62003
	5/22	~~1205~~ 1204	6	52214 P FDUP	1						✓		62004

Relinquished By:	Date/Time	Received By:	Relinquished By:	Date/Time	Received By:
(print) Steven Bailey	5/23/14	(print) Tammy Stuyts	(print)		(print)
(sign) Steven Bailey	756	(sign) Tammy Stuyts	(sign)		(sign)
Relinquished By:	Date/Time	Received By:	Relinquished By:	Date/Time	Received By:
(print)		(print)	(print)		(print)
(sign)		(sign)	(sign)		(sign)

Notice: Must use a separate form for each ice chest. Copy DISTRIBUTION: Original-Project Manager, Copy 1-QA Manager, Copy 2-Collector/Sampler Page _____ of _____

Transport container: Ice ✓ Dry Ice _____ None _____

Final destination ice chest temp (°C) 2.3°C TS

TCLP Results

Table 1. Result Summary for MDEQ Sample Analysis

Sample ID	Bench #	Chromium (mg/L)	Cadmium (mg/L)	Lead (mg/L)
52214PA	61999	0.17	2.05	0.01
52214PB + Dup	62000+62001	0.37	3.94	0.06
52214PE	62002	0.24	3.07	0.03
52214PF + Dup	62003+62004	0.37	3.55	0.03
52214PB + Dup	62013+62014	0.26	2.95	0.03
H-SW-14	62144	0.28	2.61	0.03
H-SW-15	62145	0.27	3.00	0.02
C9DEQ	62152	0.33	3.45	0.02
D10DEQ	62157	0.31	4.09	0.04
E5DEQ	62158	0.24	2.73	0.01
H-SW-11	62146	0.20	2.26	0.01
H-SW-12	62147	0.21	3.32	0.02
H-SW-13	62148	0.10	1.21	<0.01
H-SW-07	62149	0.22	2.51	0.01
H-SW-08	62150	0.18	2.10	<0.01
H-SW-09	62151	0.20	2.42	0.01
A7DEQ	62153	0.13	1.59	<0.01
HS-W-04	62154	0.22	2.40	0.01
HS-W-05	62155	0.23	2.50	0.01
H-W-06	62156	0.42	3.65	0.03
D10 DEQ	62157	0.31	4.09	0.04
E5 DEQ	62158	0.24	2.73	0.01
Canton91014A	63940	0.193	1.64	0.011
Canton91014B	63941	0.325	3.11	0.008
E14	63942	0.306	3.55	0.013
C15	63943	0.287	3.75	0.018
A13	63944	0.374	3.58	0.022
B12	63945	0.282	3.78	0.006
D16	63946	0.222	2.79	0.011
F11	63947	0.177	2.59	<0.005
E5C9D10	63948	0.309	3.58	0.027

CHAIN OF CUSTODY RECORD

Mississippi Department of Environmental Quality
Office of Pollution Control Laboratory
1542 Old Whitfield Road
Pearl, MS 39208
Phone (601) 961-5701 Fax (601)961-5704

Project: VS Tech

Location: NRO / CRO / SRO / Other _____ *(Circle one)*

Ship To: ☑ Pearl Laboratory ☐ OTHER _____

Sample Matrix:
1. Surface water 5. Sediment 9. Potable water
2. Ground water 6. Soil 10. Sludge
3. Wastewater 7. Fish tissue 11. Unsorted Benthic sample
4. Filtered chlorophyll-a 8. Leachate 12. Other

Samplers (Sign) A. Steven R Bailey C. _____ B. _____ D. _____

enSPIRE # / Site # *(Print N/A if neither is known)*	Date 20 14	Time (24 hr)	Sample matrix	Station Location/Description	Total # of Containers	Preservative: HCl	NaOH	HNO_3	H_2SO_4	$Na_2S_2O_3$	None		Lab Use Only:
	6/3	1428	6	H-SW-14	1						✓		62144
	6/3	1435	6	H-SW-15	1						✓		62145
	6/3	1359	6	H-SW-11	1						✓		62146
	6/3	1405	6	H-SW-12	1						✓		62147
	6/3	1410	6	H-SW-13	1						✓		62148
	6/3	1347	6	H-SW-07	1						✓		62149
	6/3	1350	6	H-SW-08	1						✓		62150
	6/3	1355	6	H-SW-09	1						✓		62151
	6/3	1044	6	C9 DEQ	1						✓		62152
	6/3	1108	6	A7 DEQ	1						✓		62153

Relinquished By:	Date/Time	Received By:	Relinquished By:	Date/Time	Received By:
(print) Steve Bailey	6/4/14 825	(print) Tammy Sawyer	(print)		(print)
(sign) Steven Bailey		(sign) Tammy Sawyer	(sign)		(sign)
Relinquished By:	Date/Time	Received By:	Relinquished By:	Date/Time	Received By:
(print)		(print)	(print)		(print)
(sign)		(sign)	(sign)		(sign)

Notice: Must use a separate form for each ice chest. Copy DISTRIBUTION: Original-Project Manager, Copy 1-QA Manager, Copy 2-Collector/Sampler

Transport container: Ice ✓ Dry Ice ____ None ____

Final destination ice chest temp (°C) 2.0; BB

Ver.022614

CHAIN OF CUSTODY RECORD

Mississippi Department of Environmental Quality
Office of Pollution Control Laboratory
1542 Old Whitfield Road
Pearl, MS 39208
Phone (601) 961-5701 Fax (601)961-5704

Project: US Tech

Location: NRO / CRO / SRO / Other _____ *(Circle one)*

Ship To: ☑ Pearl Laboratory ☐ OTHER _____

Sample Matrix:
1. Surface water 5. Sediment 9. Potable water
2. Ground water 6. Soil 10. Sludge
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4. Filtered chlorophyll-a 8. Leachate 12. Other

Samplers (Sign) A. Steven Bailey C. _____ B. _____ D. _____

enSPIRE # / Site # *(Print N/A if neither is known)*	Date 2014	Time (24 hr)	Sample matrix	Station Location/Description	Total # of Containers	Preservative: HCl	NaOH	HNO_3	H_2SO_4	$Na_2S_2O_3$	None		Lab Use Only:
	6/3	1120	6	HS-W-04	1						√		62154
	6/3	1126	6	HS-W-05	1						√		62155
	6/3	1129	6	H-W-06	1						√		62156
	6/3	1101	6	DIO DEQ	1						√		62157
	6/3	1136	6	ES DEQ	1						√		62158
					1						√		~~62158~~ TS

Relinquished By:	Date/Time	Received By:	Relinquished By:	Date/Time	Received By:
(print) Steven Bailey	6/4/14 825	(print) Tommy Smyer	(print)		(print)
(sign) Steven Bailey		(sign) Tommy Smyer	(sign)		(sign)
Relinquished By: (print)	Date/Time	Received By: (print)	Relinquished By: (print)	Date/Time	Received By: (print)
(sign)		(sign)	(sign)		(sign)

Notice: Must use a separate form for each ice chest. Copy DISTRIBUTION: Original-Project Manager, Copy 1-QA Manager, Copy 2-Collector/Sampler Page _____ of _____

Transport container: Ice √ Dry Ice ____ None ____

Final destination ice chest temp (°C) 2.0 c

Ver.022614

MISSISSIPPI DEPARTMENT
OF ENVIRONMENTAL QUALITY

CHAIN OF CUSTODY RECORD

POLLUTION CONTROL
LABORATORY
121 Fairmont Plaza
Pearl, Mississippi 39208

PROJECT NAME: VS Tech

LOCATION: Yazoo City MS

SHIPPED TO:

DATA TO:

SAMPLE TYPES
1. SURFACE WATER 6. SOIL/SEDIMENT
2. GROUND WATER 7. SLUDGE
3. POTABLE WATER 8. WASTE
4. WASTEWATER 9. AIR
5. LEACHATE 10. FISH
11. OTHER

SAMPLERS (SIGN)
A. Steven R Bailey
B.
C.
D.

SITE NO.	SAMPLE TYPE	DATE 2014 9/11	TIME	COMP	GRAB	STATION LOCATION/DESCRIPTION	TOTAL CONTAINERS	COD, TOC, NUTRIENTS	BOD, SOLIDS	METALS (Total) (TCLP)	EXT. ORG/PEST/PCBs (TCLP)	PURG. AROMATICS/ HALOCARBONS	CYANIDE	FECAL COLIFORM	Oil & Grease/TPH	Phenolics	TCLP Ed Cr Pb	REMARKS	LAB USE ONLY
1	6	9/11	957		✓	Canton 91014 A	1										✓		63940
2	6	9/14	1010		✓	Canton 91014 B	1										✓		63941
3	6	9/14	1120		✓	E14	1										✓		63942
4	6	9/14	1128		✓	C15	1										✓		63943
5	6	9/14	1135		✓	A13	1										✓		63944
6	6	9/14	1140		✓	B12	1										✓		63945
7	6	9/14	1145		✓	D16	1										✓		63946
8	6	9/14	1155		✓	F11	1										✓		63947
9	6	9/14	1111		✓	EBC9D10	1										✓		63948

Temp. 1.0 °C

RELINQUISHED BY: (PRINT)	DATE/TIME	RECEIVED BY: (PRINT)	RELINQUISHED BY: (PRINT)	DATE/TIME	RECEIVED BY: (PRINT)
Steve Bailey	1327 9/10/14	Tommy Snuyer			
(SIGN) Steven R Bailey		(SIGN) Tommy Snuyer	(SIGN)		(SIGN)
RELINQUISHED BY: (PRINT)	DATE/TIME	RECEIVED BY: (PRINT)	RELINQUISHED BY: (PRINT)	DATE/TIME	RECEIVED BY: (PRINT)
(SIGN)		(SIGN)	(SIGN)		(SIGN)

NOTICE: Must use a separate form for each ice chest.

DISTRIBUTION: White and Yellow copies accompany sample shipment to lab; Yellow copy retained by lab; White copy is returned to samplers; Pink copy retained by samplers.

C:\ICPMH\1\DATA\061614CC.B\QCTUNE00.D

QC Tune Report

Data File: C:\ICPMH\1\7500\QCTUNE.D
Date Acquired: 16 Jun 2014 01:45:50 pm
Operator:
Misc Info:
Vial Number: 1307
Current Method: C:\ICPMH\1\METHODS\2008TUNE.m

Minimum Response(CPS)

Element	Actual	Required	Flag

RSD (%)

Element	Actual	Required	Flag
9 Be	2.16	5.00	
24 Mg	1.87	5.00	
25 Mg	1.86	5.00	
26 Mg	1.34	5.00	
59 Co	1.94	5.00	
115 In	0.97	5.00	
206 Pb	2.51	5.00	
207 Pb	1.89	5.00	
208 Pb	1.55	5.00	

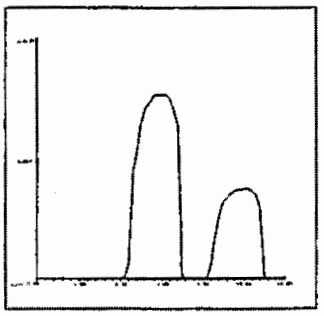
Ion Ratio

Element	Actual	Required	Flag

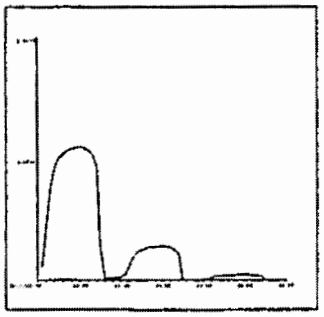
Maximum Bkg. Count(CPS)

Element	Actual	Required	Flag

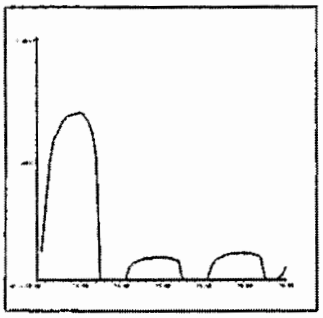
C:\ICPMH\1\DATA\061614CC.B\QCTUNE00.D



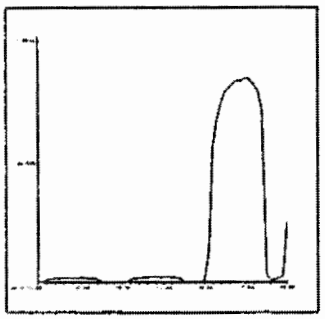
9 Be
Mass Calib.
Actual: 9.00
Required: 8.90-9.10
Flag:
Peak Width
Actual: 0.55
Required: 0.90
Flag:



24 Mg
Mass Calib.
Actual: 23.95
Required: 23.90-24.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:

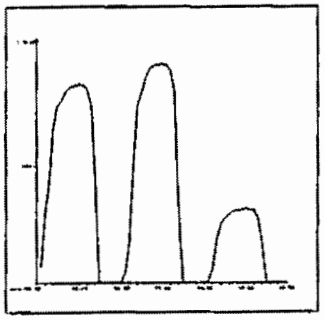


25 Mg
Mass Calib.
Actual: 24.95
Required: 24.90-25.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:

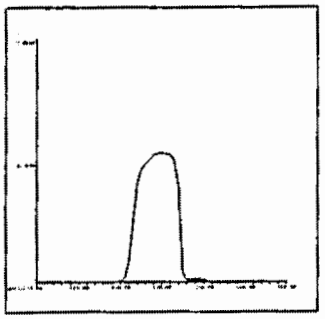


26 Mg
Mass Calib.
Actual: 25.95
Required: 25.90-26.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:

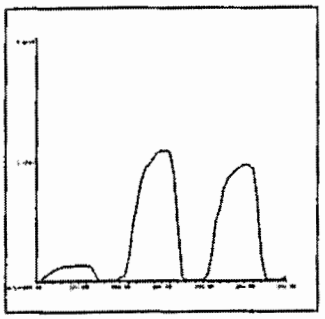
C:\ICPMH\1\DATA\061614CC.B\QCTUNE00.D



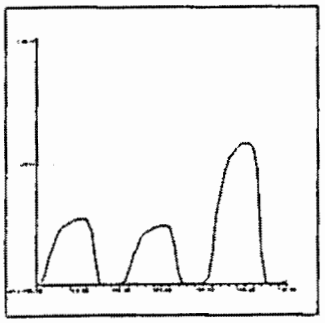
59 Co
Mass Calib.
Actual: 58.95
Required: 58.90-59.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



115 In
Mass Calib.
Actual: 115.00
Required: 114.90-115.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:

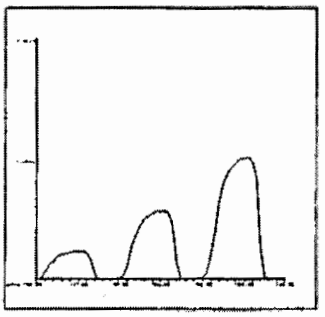


206 Pb
Mass Calib.
Actual: 206.00
Required: 205.90-206.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



207 Pb
Mass Calib.
Actual: 207.00
Required: 206.90-207.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:

C:\ICPMH\1\DATA\061614CC.B\QCTUNE00.D



208 Pb
Mass Calib.
Actual: 208.00
Required: 207.90-208.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:

QC Tune Result:Pass

C:\ICPMH\1\DATA\061614CC.B\QCTUNE00.D

Replicated Data: Tune #1

Mass	Count(CPS)				
8	80.00	58.00	66.50	70.50	76.50
9	79983.85	81925.68	82847.37	83843.51	83821.08
10	38389.20	39328.22	40427.10	40271.23	41137.11
23	1592474.00	1634714.00	1629995.00	1661827.00	1653680.00
24	389966.81	396021.09	402919.50	404006.19	403303.91
25	52473.17	53750.00	54481.70	54907.97	54754.92
26	66794.83	67943.45	69093.26	68809.60	69601.28
27	2529292.00	2588327.00	2624655.00	2613141.00	2638889.00
58	436720.59	440655.91	445113.41	448764.59	451457.09
59	463039.69	473294.81	477857.50	477897.50	478810.41
60	163869.70	165263.20	168032.41	169761.91	169729.20
114	1286.34	1323.90	1364.95	1304.36	1275.88
115	1440742.00	1473642.00	1490436.00	1481238.00	1495165.00
116	1485.67	1494.68	1551.69	1646.21	1615.21
205	17834.41	17938.77	16908.56	15353.43	14376.97
206	127251.20	131172.41	133927.59	134506.41	134910.00
207	114431.40	117193.40	119594.30	119616.50	119934.60
208	274807.31	281794.81	286339.81	286753.59	287141.81
209	487627.59	496920.41	501780.00	504123.59	504145.69

Calibration Blank Report

Sample Name	**Blank**
Data File Name	**002CALB.D**
DataPath	**C:\ICPMH\1\DATA\061614CC.B**
Acq Date Time	**2014-06-16T13:53:34-04:00**
Type	**CalBlk**
VialNumber	**1101**
Dilution	**1**
Comment	
Operator	

QC Analyte Table

Element	m/z	ISTD	Tune Step	CPS	%RSD
Be	9	45	1	390	16.01
Na	23	45	1	1227592	2.06
Mg	24	45	1	35860	2.24
Al	27	45	1	467932	2.82
Ca	44	45	1	434950	3.10
Ti	47	45	1	1001	12.40
V	51	45	1	5349	3.11
Cr (V)	52	45	1	22238	2.37
Mn	55	45	1	22525	3.60
Fe	57	45	1	125811	1.17
Co	59	89	1	3234	9.56
Ni	60	89	1	256382	1.20
Cu	63	89	1	8793	6.08
Zn	66	89	1	26047	11.99
(As)	77	115	1	2674	3.19
Se	82	115	1	653	9.04
(As)	83	115	1	621	6.23
Mo	98	115	1	16826	12.21
(Cd)	106	115	1	2267	7.60
Ag	107	115	1	173	28.46
(Cd)	108	115	1	277	19.91
Cd	111	115	1	1612	11.20
Sn	118	115	1	1060	24.07
Sb	121	159	1	2400	8.97
Ba	137	159	1	530	15.09
Tl	205	209	1	10167	7.08
(Pb)	206	209	1	3684	22.55
(Pb)	207	209	1	2850	14.50
Pb	208	209	1	13970	9.74

QC ISTD Table

Element	m/z	Tune Step	CPS	%RSD
Sc	45	1	1113833	4.56
Y	89	1	1550362	0.30
In	115	1	1421343	1.57
Tb	159	1	1818278	1.41
Bi	209	1	994914	0.95

TuneStep	TuneFile
1	nogas.u

Calibration Blank Report

Sample Name	**Blank**
Data File Name	**003CALB.D**
DataPath	**C:\ICPMH\1\DATA\061614CC.B**
Acq Date Time	**2014-06-16T13:58:27-04:00**
Type	**CalBlk**
VialNumber	**1101**
Dilution	**1**
Comment	
Operator	

QC Analyte Table

Element	m/z	ISTD	Tune Step	CPS	%RSD
Be	9	45	1	340	13.48
Na	23	45	1	1230036	3.30
Mg	24	45	1	35754	3.31
Al	27	45	1	457889	3.76
Ca	44	45	1	429548	2.24
Tl	47	45	1	1029	9.85
V	51	45	1	5445	14.66
Cr (V)	52	45	1	22699	1.14
Mn	55	45	1	21771	0.83
Fe	57	45	1	127490	0.98
Co	59	89	1	2870	9.92
Ni	60	89	1	248071	0.86
Cu	63	89	1	8579	10.36
Zn	66	89	1	18891	16.33
(As)	77	115	1	2883	1.35
Se	82	115	1	648	2.94
(As)	83	115	1	574	7.71
Mo	98	115	1	12453	17.42
(Cd)	106	115	1	2417	4.46
Ag	107	115	1	213	16.46
(Cd)	108	115	1	213	35.18
Cd	111	115	1	1778	11.65
Sn	118	115	1	1030	22.89
Sb	121	159	1	2584	17.98
Ba	137	159	1	540	21.36
Tl	205	209	1	7329	11.70
(Pb)	206	209	1	3674	13.67
(Pb)	207	209	1	2867	8.18
Pb	208	209	1	14260	8.84

QC ISTD Table

Element	m/z	Tune Step	CPS	%RSD
Sc	45	1	1059675	2.60
Y	89	1	1524489	2.42
In	115	1	1379968	2.33
Tb	159	1	1760231	2.68
Bi	209	1	963543	2.51

TuneStep	TuneFile
1	nogas.u

Calibration Blank Report

Sample Name	**Blank**
Data File Name	**004CALB.D**
DataPath	**C:\ICPMH\1\DATA\061614CC.B**
Acq Date Time	**2014-06-16T14:03:18-04:00**
Type	**CalBlk**
VialNumber	**1101**
Dilution	**1**
Comment	
Operator	

QC Analyte Table

Element	m/z	ISTD	Tune Step	CPS	%RSD
Be	9	45	1	300	6.67
Na	23	45	1	1229124	1.09
Mg	24	45	1	36972	4.50
Al	27	45	1	454623	4.10
Ca	44	45	1	421927	3.00
Tl	47	45	1	961	5.31
V	51	45	1	5770	7.68
Cr (V)	52	45	1	23239	1.44
Mn	55	45	1	20833	2.81
Fe	57	45	1	129037	0.89
Co	59	89	1	2557	10.73
Ni	60	89	1	236304	1.87
Cu	63	89	1	9116	7.31
Zn	66	89	1	23637	18.23
(As)	77	115	1	2932	2.64
Se	82	115	1	669	3.65
(As)	83	115	1	611	9.72
Mo	98	115	1	10113	14.07
(Cd)	106	115	1	2100	10.00
Ag	107	115	1	197	33.08
(Cd)	108	115	1	187	15.46
Cd	111	115	1	1494	7.95
Sn	118	115	1	877	20.09
Sb	121	159	1	2387	9.97
Ba	137	159	1	437	15.25
Tl	205	209	1	6305	9.57
(Pb)	206	209	1	3591	10.38
(Pb)	207	209	1	2854	9.48
Pb	208	209	1	13836	7.04

QC ISTD Table

Element	m/z	Tune Step	CPS	%RSD
Sc	45	1	1050744	6.89
Y	89	1	1455347	3.58
In	115	1	1304115	3.87
Tb	159	1	1700346	2.17
Bi	209	1	929407	3.14

TuneStep	TuneFile
1	nogas.u

Calibration Standard Report

Sample Name	**1/0.1ppb**
Data File Name	**005CALS.D**
DataPath	**C:\ICPMH\1\DATA\061614CC.B**
Acq Date Time	**2014-06-16T14:08:11-04:00**
Type	**CalStd**
VialNumber	**1102**
Dilution	**1**
Comment	
Operator	
ISTDRefDataFileName	**004CALB.D**
ISTD PassFail	**Pass**

QC Analyte Table

Element	m/z	ISTD	Tune Step	CPS	%RSD
Be	9	45	1	9630	15.29
Na	23	45	1	1396792	5.72
Mg	24	45	1	81379	9.28
Al	27	45	1	407287	4.98
Ca	44	45	1	415875	4.50
Ti	47	45	1	5201	11.85
V	51	45	1	65809	12.71
Cr (V)	52	45	1	78447	10.68
Mn	55	45	1	94449	9.65
Fe	57	45	1	129343	0.24
Co	59	89	1	60969	11.52
Ni	60	89	1	236523	0.82
Cu	63	89	1	40612	10.26
Zn	66	89	1	89807	49.00
As	75	115	1	7522	15.09
(As)	77	115	1	3580	4.58
Se	82	115	1	1228	8.75
(As)	83	115	1	601	8.82
Mo	98	115	1	30424	12.51
(Cd)	106	115	1	3234	13.18
Ag	107	115	1	670	14.39
(Cd)	108	115	1	617	14.63
Cd	111	115	1	10151	13.29
Sn	118	115	1	21779	11.41
Sb	121	159	1	31157	11.83
Ba	137	159	1	9210	9.37
Tl	205	209	1	58241	10.64
(Pb)	206	209	1	19196	11.16
(Pb)	207	209	1	16867	14.51
Pb	208	209	1	77533	12.08

QC ISTD Table

Element	m/z	Tune Step	CPS	%RSD	Reference CPS	%Recovery	Lower Limit	Upper Limit	QC Flag
Sc	45	1	1036705	6.11	1050744	98.7	60	125	
Y	89	1	1438274	2.39	1[illegible]7	98.8	60	125	
In	115	1	1273408	4.80	1304115	97.6	60	125	
Tb	159	1	1684111	1.32	1700346	99.0	60	125	
Bi	209	1	915225	2.64	929407	98.5	60	125	

TuneStep	TuneFile
1	nogas.u

Calibration Standard Report

Sample Name	**10/1ppb**
Data File Name	**006CALS.D**
DataPath	**C:\ICPMH\1\DATA\061614CC.B**
Acq Date Time	**2014-06-16T14:13:04-04:00**
Type	**CalStd**
VialNumber	**1103**
Dilution	**1**
Comment	
Operator	
ISTDRefDataFileName	**004CALB.D**
ISTD PassFail	**Pass**

QC Analyte Table

Element	m/z	ISTD	Tune Step	CPS	%RSD
Be	9	45	1	97035	0.54
Na	23	45	1	1765692	3.30
Mg	24	45	1	380669	2.50
Al	27	45	1	781643	2.54
Ca	44	45	1	425163	3.40
Ti	47	45	1	44167	2.89
V	51	45	1	603809	2.58
Cr (V)	52	45	1	576603	1.68
Mn	55	45	1	737352	2.04
Fe	57	45	1	142880	1.93
Co	59	89	1	609944	2.56
Ni	60	89	1	355642	1.00
Cu	63	89	1	322886	3.12
Zn	66	89	1	132535	1.03
As	75	115	1	86664	2.36
(As)	77	115	1	7332	1.31
Se	82	115	1	6265	1.27
(As)	83	115	1	580	1.79
Mo	98	115	1	216485	3.84
(Cd)	106	115	1	9650	2.83
Ag	107	115	1	13606	12.74
(Cd)	108	115	1	5671	4.37
Cd	111	115	1	83248	3.55
Sn	118	115	1	208834	3.48
Sb	121	159	1	298506	2.88
Ba	137	159	1	92531	2.53
Tl	205	209	1	525759	2.09
(Pb)	206	209	1	180564	1.19
(Pb)	207	209	1	160540	2.49
Pb	208	209	1	731518	1.90

QC ISTD Table

Element	m/z	Tune Step	CPS	%RSD	Reference CPS	%Recovery	Lower Limit	Upper Limit	QC Flag
Sc	45	1	1002337	4.70	1050744	95.4	60	125	
Y	89	1	1431222	4.44	1455347	98.3	60	125	
In	115	1	1264091	5.50	1304115	96.9	60	125	
Tb	159	1	1652250	3.72	1700346	97.2	60	125	
Bi	209	1	899040	3.92	929407	96.7	60	125	

TuneStep	TuneFile
1	nogas.u

Calibration Standard Report

Sample Name	**100/10ppb**
Data File Name	**007CALS.D**
DataPath	**C:\ICPMH\1\DATA\061614CC.B**
Acq Date Time	**2014-06-16T14:17:57-04:00**
Type	**CalStd**
VialNumber	**1104**
Dilution	**1**
Comment	
Operator	
ISTDRefDataFileName	**004CALB.D**
ISTD PassFail	**Pass**

QC Analyte Table

Element	m/z	ISTD	Tune Step	CPS	%RSD
Be	9	45	1	1124618	1.96
Na	23	45	1	6969756	1.79
Mg	24	45	1	3983012	0.79
Al	27	45	1	4935455	2.17
Ca	44	45	1	604410	1.95
Ti	47	45	1	467283	1.69
V	51	45	1	6732727	2.03
Cr (V)	52	45	1	6295475	1.76
Mn	55	45	1	7993326	1.66
Fe	57	45	1	291439	1.42
Co	59	89	1	6776676	1.65
Ni	60	89	1	1800123	1.54
Cu	63	89	1	3615239	0.99
Zn	66	89	1	1015557	0.67
As	75	115	1	955528	1.60
(As)	77	115	1	52299	1.59
Se	82	115	1	64501	1.20
(As)	83	115	1	623	9.54
Mo	98	115	1	2381890	0.52
(Cd)	106	115	1	82513	2.93
Ag	107	115	1	306435	6.45
(Cd)	108	115	1	60698	2.31
Cd	111	115	1	884442	1.33
Sn	118	115	1	2361586	0.81
Sb	121	159	1	3343464	0.41
Ba	137	159	1	1005050	1.81
Tl	205	209	1	5962923	1.53
(Pb)	206	209	1	2110427	2.35
(Pb)	207	209	1	1819590	1.60
Pb	208	209	1	8260736	1.83

QC ISTD Table

Element	m/z	Tune Step	CPS	%RSD	Reference CPS	%Recovery	Lower Limit	Upper Limit	QC Flag
Sc	45	1	1001266	8.16	1050744	95.3	60	125	
Y	89	1	1[illegible]5	10.77	1455347	97.3	60	125	
In	115	1	1272680	8.58	1304115	97.6	60	125	
Tb	159	1	1656083	8.40	1700346	97.4	60	125	
Bi	209	1	878857	7.98	929407	94.6	60	125	

TuneStep	TuneFile
1	nogas.u

Calibration Standard Report

Sample Name	**500/50ppb**
Data File Name	**008CALS.D**
DataPath	**C:\ICPMH\1\DATA\061614CC.B**
Acq Date Time	**2014-06-16T14:22:46-04:00**
Type	**CalStd**
VialNumber	**1105**
Dilution	**1**
Comment	
Operator	
ISTDRefDataFileName	**004CALB.D**
ISTD PassFail	**Pass**

QC Analyte Table

Element	m/z	ISTD	Tune Step	CPS	%RSD
Be	9	45	1	4941477	1.40
Na	23	45	1	27106469	2.34
Mg	24	45	1	17611915	2.22
Al	27	45	1	21086441	2.38
Ca	44	45	1	1517853	0.28
Ti	47	45	1	2244498	2.26
V	51	45	1	29494798	1.38
Cr (V)	52	45	1	28171185	1.60
Mn	55	45	1	35894838	2.11
Fe	57	45	1	866360	1.13
Co	59	89	1	30731280	2.32
Ni	60	89	1	7184269	2.43
Cu	63	89	1	15767024	2.28
Zn	66	89	1	4725338	1.77
As	75	115	1	4513868	2.66
(As)	77	115	1	224623	2.04
Se	82	115	1	295040	2.73
(As)	83	115	1	837	8.11
Mo	98	115	1	10777938	1.67
(Cd)	106	115	1	371955	1.84
Ag	107	115	1	1760063	2.85
(Cd)	108	115	1	276720	1.54
Cd	111	115	1	4163268	1.49
Sn	118	115	1	10707224	2.55
Sb	121	159	1	15351163	2.51
Ba	137	159	1	4807182	2.23
Tl	205	209	1	27210511	2.36
(Pb)	206	209	1	9294416	2.98
(Pb)	207	209	1	8043622	2.69
Pb	208	209	1	36722616	2.71

QC ISTD Table

Element	m/z	Tune Step	CPS	%RSD	Reference CPS	%Recovery	Lower Limit	Upper Limit	QC Flag
Sc	45	1	992445	1.70	1050744	94.5	60	125	
Y	89	1	1409618	2.81	1455347	96.9	60	125	
In	115	1	1269147	0.97	1304115	97.3	60	125	
Tb	159	1	1642747	0.68	1700346	96.6	60	125	
Bi	209	1	866440	1.99	929407	93.2	60	125	

TuneStep	TuneFile
1	nogas.u

Calibration Standard Report

Sample Name	**1000/100ppm**
Data File Name	**009CALS.D**
DataPath	**C:\ICPMH\1\DATA\061614CC.B**
Acq Date Time	**2014-06-16T14:27:28-04:00**
Type	**CalStd**
VialNumber	**1106**
Dilution	**1**
Comment	
Operator	
ISTDRefDataFileName	**004CALB.D**
ISTD PassFail	**Pass**

QC Analyte Table

Element	m/z	ISTD	Tune Step	CPS	%RSD
Be	9	45	1	9905293	2.80
Na	23	45	1	53390736	0.98
Mg	24	45	1	35334196	1.44
Al	27	45	1	42495391	0.82
Ca	44	45	1	2521697	1.22
Ti	47	45	1	4449772	1.94
V	51	45	1	59878328	2.41
Cr (V)	52	45	1	56322086	1.09
Mn	55	45	1	72039774	2.08
Fe	57	45	1	1633360	2.46
Co	59	89	1	61044099	2.16
Ni	60	89	1	14149056	2.35
Cu	63	89	1	31545032	1.53
Zn	66	89	1	9411010	1.41
As	75	115	1	9017485	1.56
(As)	77	115	1	451555	2.13
Se	82	115	1	592535	2.56
(As)	83	115	1	932	4.23
Mo	98	115	1	21607134	1.44
(Cd)	106	115	1	742661	1.15
Ag	107	115	1	3609336	2.77
(Cd)	108	115	1	553947	1.90
Cd	111	115	1	8355262	1.76
Sn	118	115	1	21536316	1.40
Sb	121	159	1	30869151	2.87
Ba	137	159	1	9640410	1.66
Tl	205	209	1	54462366	3.14
(Pb)	206	209	1	18575976	2.05
(Pb)	207	209	1	16085226	1.97
Pb	208	209	1	73861643	1.91

QC ISTD Table

Element	m/z	Tune Step	CPS	%RSD	Reference CPS	%Recovery	Lower Limit	Upper Limit	QC Flag
Sc	45	1	1003507	1.39	1050744	95.5	60	125	
Y	89	1	1431790	2.39	1455347	98.4	60	125	
In	115	1	1253627	2.20	1304115	96.1	60	125	
Tb	159	1	1684891	1.49	1700346	99.1	60	125	
Bi	209	1	866572	2.00	929407	93.2	60	125	

TuneStep	TuneFile
1	nogas.u

Continuing Calibration Verification (CCV) - US EPA Method 6020

Sample Name	**10/100ppb**
Data File Name	**0116CCV.D**
DataPath	**C:\ICPMH\1\DATA\061614CC.B**
Acq Date Time	**2014-06-16T14:37:01-04:00**
Type	**6-CCV**
VialNumber	**1104**
Dilution	**1**
Comment	
Operator	
ISTDRefDataFileName	**004CALB.D**
SamplePassFail	**Fail**
ISTD PassFail	**Pass**

QC Analyte Table

Element	m/z	ISTD	Tune Step	Meas Value	Units	ExpectedValue	%Recovery	%QC Low	%QC High	QC Flag
Be	9	45	1	105.73	ppb	100	105.7	90	110	
B	11	45	1	113.23	ppb	100	113.2	90	110	>+/-10%
Na	23	45	1	104.15	ppb	100	104.1	90	110	
Mg	24	45	1	106.04	ppb	100	106.0	90	110	
Al	27	45	1	103.73	ppb	100	103.7	90	110	
P	31	45	1	135.63	ppb	100	135.6	90	110	>+/-10%
S	32	45	1	1012.21	ppb	100	1012.2	90	110	>+/-10%
K	39	45	1	111.70	ppb	100	111.7	90	110	>+/-10%
Ca	44	45	1	74.80	ppb	100	74.8	90	110	>+/-10%
Ti	47	45	1	99.74	ppb	100	99.7	90	110	
V	51	45	1	109.23	ppb	100	109.2	90	110	
Cr (V)	52	45	1	107.05	ppb	100	107.0	90	110	
Cr	53	45	1	99.39	ppb	100	99.4	90	110	
Mn	55	45	1	106.58	ppb	100	106.6	90	110	
Fe	57	45	1	100.36	ppb	100	100.4	90	110	
Co	59	89	1	107.79	ppb	100	107.8	90	110	
Ni	60	89	1	110.91	ppb	100	110.9	90	110	>+/-10%
Cu	63	89	1	110.68	ppb	100	110.7	90	110	>+/-10%
Zn	66	89	1	102.70	ppb	100	102.7	90	110	
As	75	115	1	102.26	ppb	100	102.3	90	110	
(As)	77	115	1	105.85	ppb	100	105.9	90	110	
Se	82	115	1	106.20	ppb	100	106.2	90	110	
Sr	88	115	1	106.54	ppb	100	106.5	90	110	
Mo	95	115	1	109.45	ppb	100	109.5	90	110	
Mo	98	115	1	110.35	ppb	100	110.3	90	110	>+/-10%
(Mo)	99	115	1	188.83	ppb	100	188.8	90	110	>+/-10%
(Cd)	106	115	1	106.17	ppb	100	106.2	90	110	
Ag	107	115	1	8.00	ppb	10	80.0	90	110	>+/-10%
(Cd)	108	115	1	106.72	ppb	100	106.7	90	110	
Cd	111	115	1	102.90	ppb	100	102.9	90	110	
Sn	118	115	1	107.20	ppb	100	107.2	90	110	
Sb	121	159	1	108.80	ppb	100	108.8	90	110	
Ba	137	159	1	102.31	ppb	100	102.3	90	110	
Tl	205	209	1	108.05	ppb	100	108.0	90	110	
(Pb)	206	209	1	109.15	ppb	100	109.1	90	110	
(Pb)	207	209	1	110.14	ppb	100	110.1	90	110	>+/-10%
Pb	208	209	1	109.01	ppb	100	109.0	90	110	

QC ISTD Table

Element	m/z	Tune Step	CPS	%RSD	Reference CPS	%Recovery	Lower Limit	Upper Limit	QC Flag
Sc	45	1	1004644	3.97	1050744	95.6	60	125	
Y	89	1	1397741	7.12	1455347	96.0	60	125	
In	115	1	1250077	5.03	1304115	95.9	60	125	
Tb	159	1	1624450	6.18	1700346	95.5	60	125	
Bi	209	1	852243	4.82	929407	91.7	60	125	

TuneStep	TuneFile
1	nogas.u

Continuing Calibration Blank (CCB) - US EPA Method 200.8

Sample Name	**Blank**
Data File Name	**0122CCB.D**
DataPath	**C:\ICPMH\1\DATA\061614CC.B**
Acq Date Time	**2014-06-16T14:41:49-04:00**
Type	**2-CCB**
VialNumber	**1101**
Dilution	**1**
Comment	
Operator	
ISTDRefDataFileName	**004CALB.D**
SamplePassFail	**Fail**
ISTD PassFail	**Pass**

QC Analyte Table

Element	m/z	ISTD	Tune Step	Meas Value	Units	QC High	QC Flag
Be	9	45	1	0.01	ppb	0.05	
Na	23	45	1	-1.84	ppb	0.5	
Mg	24	45	1	0.08	ppb	5	
Al	27	45	1	0.85	ppb	0.55	>MDL
Ca	44	45	1	-24.80	ppb	5	
Ti	47	45	1	0.00	ppb	0.05	
V	51	45	1	0.03	ppb	0.05	
Cr (V)	52	45	1	-0.01	ppb	0.05	
Mn	55	45	1	0.04	ppb	0.5	
Fe	57	45	1	-10.26	ppb	0.5	
Co	59	89	1	0.03	ppb	0.05	
Ni	60	89	1	-1.89	ppb	0.05	
Cu	63	89	1	0.00	ppb	0.05	
Zn	66	89	1	0.18	ppb	0.05	>MDL
As	75	115	1	0.10	ppb	0.05	>MDL
(As)	77	115	1	-1.46	ppb	0.05	
Se	82	115	1	0.29	ppb	0.05	>MDL
(As)	83	115	1	-134.93	ppb	0.05	
Mo	98	115	1	3.00	ppb	0.05	>MDL
(Cd)	106	115	1	-0.14	ppb	0.05	
Ag	107	115	1	0.08	ppb	0.005	>MDL
(Cd)	108	115	1	-0.16	ppb	0.05	
Cd	111	115	1	0.01	ppb	0.05	
Sn	118	115	1	0.06	ppb	0.05	>MDL
Sb	121	159	1	0.23	ppb	0.05	>MDL
Ba	137	159	1	0.03	ppb	0.05	
Tl	205	209	1	-0.03	ppb	0.05	
(Pb)	206	209	1	0.05	ppb	0.05	>MDL
(Pb)	207	209	1	0.07	ppb	0.05	>MDL
Pb	208	209	1	0.05	ppb	0.05	

QC ISTD Table

Element	m/z	Tune Step	CPS	%RSD	Reference CPS	%Recovery	Lower Limit	Upper Limit	QC Flag
Sc	45	1	1122911	6.43	1050744	106.9	60	125	
Y	89	1	1499093	5.97	1455347	103.0	60	125	
In	115	1	1361061	5.84	1304115	104.4	60	125	
Tb	159	1	1744534	6.41	1700346	102.6	60	125	
Bi	209	1	944341	6.29	929407	101.6	60	125	

TuneStep	TuneFile
1	nogas.u

Calibration Blank Report

Sample Name	**Blank**
Data File Name	**013CALB.D**
DataPath	**C:\ICPMH\1\DATA\061614CC.B**
Acq Date Time	**2014-06-16T14:46:40-04:00**
Type	**CalBlk**
VialNumber	**1101**
Dilution	**1**
Comment	
Operator	

QC Analyte Table

Element	m/z	ISTD	Tune Step	CPS	%RSD
Be	9	45	1	297	8.48
Na	23	45	1	1202886	1.77
Mg	24	45	1	43905	1.44
Al	27	45	1	550384	1.05
Ca	44	45	1	393208	2.79
Ti	47	45	1	984	5.92
V	51	45	1	7906	6.81
Cr (V)	52	45	1	24795	1.86
Mn	55	45	1	22418	4.82
Fe	57	45	1	121216	1.98
Co	59	89	1	3791	7.33
Ni	60	89	1	210414	1.49
Cu	63	89	1	7285	3.67
Zn	66	89	1	32434	0.67
(As)	77	115	1	2826	3.16
Se	82	115	1	808	7.55
(As)	83	115	1	561	12.87
Mo	98	115	1	41032	14.16
(Cd)	106	115	1	2064	7.76
Ag	107	115	1	1340	27.40
(Cd)	108	115	1	90	69.39
Cd	111	115	1	1593	4.74
Sn	118	115	1	1543	4.31
Sb	121	159	1	4994	18.81
Ba	137	159	1	660	7.87
Tl	205	209	1	2570	8.10
(Pb)	206	209	1	4584	8.20
(Pb)	207	209	1	3737	11.51
Pb	208	209	1	17471	7.55

QC ISTD Table

Element	m/z	Tune Step	CPS	%RSD
Sc	45	1	1173646	3.29
Y	89	1	1594314	3.18
In	115	1	1448973	2.23
Tb	159	1	1843492	2.39
Bi	209	1	985825	1.40

TuneStep	TuneFile
1	nogas.u

Calibration Blank Report

Sample Name	**Blank**
Data File Name	**014CALB.D**
DataPath	**C:\ICPMH\1\DATA\061614CC.B**
Acq Date Time	**2014-06-16T14:51:33-04:00**
Type	**CalBlk**
VialNumber	**1101**
Dilution	**1**
Comment	
Operator	

QC Analyte Table

Element	m/z	ISTD	Tune Step	CPS	%RSD
Be	9	45	1	333	26.21
Na	23	45	1	1169378	1.95
Mg	24	45	1	42585	3.04
Al	27	45	1	527250	2.32
Ca	44	45	1	385786	3.01
Tl	47	45	1	975	3.61
V	51	45	1	7184	5.73
Cr (V)	52	45	1	24030	3.21
Mn	55	45	1	20436	2.22
Fe	57	45	1	121776	1.27
Co	59	89	1	3280	4.30
Ni	60	89	1	198082	0.33
Cu	63	89	1	6328	6.26
Zn	66	89	1	28965	3.77
(As)	77	115	1	2937	4.69
Se	82	115	1	751	2.92
(As)	83	115	1	544	1.47
Mo	98	115	1	31901	18.02
(Cd)	106	115	1	1940	4.72
Ag	107	115	1	793	9.12
(Cd)	108	115	1	53	65.85
Cd	111	115	1	1542	2.75
Sn	118	115	1	1170	7.69
Sb	121	159	1	3834	14.62
Ba	137	159	1	567	15.91
Tl	205	209	1	2180	9.21
(Pb)	206	209	1	4361	2.43
(Pb)	207	209	1	3897	6.16
Pb	208	209	1	17648	0.82

QC ISTD Table

Element	m/z	Tune Step	CPS	%RSD
Sc	45	1	995521	4.88
Y	89	1	1447937	7.07
In	115	1	1251805	8.95
Tb	159	1	1678487	4.02
Bi	209	1	881544	3.95

TuneStep	TuneFile
1	nogas.u

Sample Report

Sample Name	**blk**
Data File Name	**015SMPL.D**
DataPath	**C:\ICPMH\1\DATA\061614CC.B**
Acq Date Time	**2014-06-16T14:56:25-04:00**
Type	**Sample**
VialNumber	**2101**
Dilution	**1**
Comment	
Operator	
ISTDRefDataFileName	**014CALB.D**
SamplePassFail	**Fail**
ISTD PassFail	**Pass**

QC Analyte Table

Element	m/z	ISTD	Tune Step	Meas Value	FinalConcentration	Units	High Value	QC Flag
Be	9	45	1	-0.01	-0.01	ppb	500	
B	11	45	1	-6.02	-6.02	ppb	500	
Na	23	45	1	-1.17	-1.17	ppb	500	
Mg	24	45	1	-0.87	-0.87	ppb	500	
Al	27	45	1	-7.21	-7.21	ppb	500	
P	31	45	1	-55.72	-55.72	ppb	500	
S	32	45	1	2619.52	2619.52	ppb	500	>LDR
K	39	45	1	-39.48	-39.48	ppb	500	
Ca	44	45	1	-23.59	-23.59	ppb	500	
Ti	47	45	1	-0.05	-0.05	ppb	500	
V	51	45	1	-0.04	-0.04	ppb	500	
Cr (V)	52	45	1	-0.10	-0.10	ppb	500	
Cr	53	45	1	-0.02	-0.02	ppb	500	
Mn	55	45	1	-0.07	-0.07	ppb	500	
Fe	57	45	1	-11.11	-11.11	ppb	500	
Co	59	89	1	-0.02	-0.02	ppb	500	
Ni	60	89	1	-0.05	-0.05	ppb	500	
Cu	63	89	1	0.03	0.03	ppb	500	
Zn	66	89	1	-1.85	-1.85	ppb	500	
As	75	115	1	-0.03	-0.03	ppb	500	
(As)	77	115	1	-0.62	-0.62	ppb	500	
Se	82	115	1	-0.06	-0.06	ppb	500	
(As)	83	115	1	88.00	88.00	ppb	500	
Sr	88	115	1	-0.10	-0.10	ppb	500	
Mo	95	115	1	-0.95	-0.95	ppb	500	
Mo	98	115	1	-0.93	-0.93	ppb	500	
(Mo)	99	115	1	14895.95	14895.95	ppb	500	>LDR
(Cd)	106	115	1	-0.17	-0.17	ppb	500	
Ag	107	115	1	-0.01	-0.01	ppb	500	
(Cd)	108	115	1	0.00	0.00	ppb	500	
Cd	111	115	1	-0.01	-0.01	ppb	500	
Sn	118	115	1	-0.02	-0.02	ppb	500	
Sb	121	159	1	-0.06	-0.06	ppb	500	
Ba	137	159	1	-0.03	-0.03	ppb	500	
Tl	205	209	1	-0.01	-0.01	ppb	500	
(Pb)	206	209	1	-0.20	-0.20	ppb	500	
(Pb)	207	209	1	-0.21	-0.21	ppb	500	
Pb	208	209	1	-0.21	-0.21	ppb	500	

QC ISTD Table

Element	m/z	Tune Step	CPS	%RSD	Reference CPS	%Recovery	Lower Limit	Upper Limit	QC Flag
Sc	45	1	1131216	10.18	995521	113.6	60	125	
Y	89	1	1466712	11.27	1447937	101.3	60	125	
In	115	1	1332341	11.33	1251805	106.4	60	125	
Tb	159	1	1677664	11.12	1678487	100.0	60	125	
Bi	209	1	938372	12.45	881544	106.4	60	125	

TuneStep	TuneFile
1	nogas.u

Sample Report

Sample Name	**TM1 WS L1360**
Data File Name	**016SMPL.D**
DataPath	**C:\ICPMH\1\DATA\061614CC.B**
Acq Date Time	**2014-06-16T15:01:15-04:00**
Type	**Sample**
VialNumber	**2102**
Dilution	**1**
Comment	
Operator	
ISTDRefDataFileName	**014CALB.D**
SamplePassFail	**Fail**
ISTD PassFail	**Pass**

QC Analyte Table

Element	m/z	ISTD	Tune Step	Meas Value	FinalConcentration	Units	High Value	QC Flag
Be	9	45	1	8.39	8.39	ppb	500	
B	11	45	1	1.43	1.43	ppb	500	
Na	23	45	1	37.14	37.14	ppb	500	
Mg	24	45	1	0.03	0.03	ppb	500	
Al	27	45	1	165.69	165.69	ppb	500	
P	31	45	1	10.03	10.03	ppb	500	
S	32	45	1	1364.71	1364.71	ppb	500	>LDR
K	39	45	1	-43.36	-43.36	ppb	500	
Ca	44	45	1	-28.45	-28.45	ppb	500	
Ti	47	45	1	0.06	0.06	ppb	500	
V	51	45	1	0.27	0.27	ppb	500	
Cr (V)	52	45	1	42.53	42.53	ppb	500	
Cr	53	45	1	39.29	39.29	ppb	500	
Mn	55	45	1	375.71	375.71	ppb	500	
Fe	57	45	1	1120.16	1120.16	ppb	500	>LDR
Co	59	89	1	0.02	0.02	ppb	500	
Ni	60	89	1	61.66	61.66	ppb	500	
Cu	63	89	1	928.20	928.20	ppb	500	>LDR
Zn	66	89	1	443.17	443.17	ppb	500	
As	75	115	1	7.65	7.65	ppb	500	
(As)	77	115	1	26.16	26.16	ppb	500	
Se	82	115	1	27.18	27.18	ppb	500	
(As)	83	115	1	-92.07	-92.07	ppb	500	
Sr	88	115	1	-0.07	-0.07	ppb	500	
Mo	95	115	1	-0.44	-0.44	ppb	500	
Mo	98	115	1	-0.44	-0.44	ppb	500	
(Mo)	99	115	1	-8058.67	-8058.67	ppb	500	
(Cd)	106	115	1	14.80	14.80	ppb	500	
Ag	107	115	1	0.00	0.00	ppb	500	
(Cd)	108	115	1	15.21	15.21	ppb	500	
Cd	111	115	1	14.46	14.46	ppb	500	
Sn	118	115	1	0.01	0.01	ppb	500	
Sb	121	159	1	-0.01	-0.01	ppb	500	
Ba	137	159	1	0.00	0.00	ppb	500	
Tl	205	209	1	0.00	0.00	ppb	500	
(Pb)	206	209	1	10.46	10.46	ppb	500	
(Pb)	207	209	1	10.12	10.12	ppb	500	
Pb	208	209	1	10.32	10.32	ppb	500	

QC ISTD Table

Element	m/z	Tune Step	CPS	%RSD	Reference CPS	%Recovery	Lower Limit	Upper Limit	QC Flag
Sc	45	1	1134499	5.98	995521	114.0	60	125	
Y	89	1	1544700	3.33	1447937	106.7	60	125	
In	115	1	1437804	5.49	1251805	114.9	60	125	
Tb	159	1	1793179	4.17	1678487	106.8	60	125	
Bi	209	1	950103	5.17	881544	107.8	60	125	

TuneStep	TuneFile
1	nogas.u

Sample Report

Sample Name	**14061145 B**
Data File Name	**055SMPL.D**
DataPath	**C:\ICPMH\1\DATA\061614CC.B**
Acq Date Time	**2014-06-16T18:11:13-04:00**
Type	**Sample**
VialNumber	**2308**
Dilution	**1**
Comment	
Operator	
ISTDRefDataFileName	**014CALB.D**
SamplePassFail	**Fail**
ISTD PassFail	**Pass**

QC Analyte Table

Element	m/z	ISTD	Tune Step	Meas Value	FinalConcentration	Units	High Value	QC Flag
Be	9	45	1	0.00	0.00	ppb	500	
B	11	45	1	9.94	9.94	ppb	500	
Mg	24	45	1	1356.32	1356.32	ppb	500	>LDR
Al	27	45	1	-0.17	-0.17	ppb	500	
P	31	45	1	-28.97	-28.97	ppb	500	
S	32	45	1	5198.17	5198.17	ppb	500	>LDR
K	39	45	1	7751.77	7751.77	ppb	500	>LDR
Ca	44	45	1	216241.55	216241.55	ppb	500	>LDR
Ti	47	45	1	2.94	2.94	ppb	500	
V	51	45	1	57.78	57.78	ppb	500	
Cr (V)	52	45	1	102.21	102.21	ppb	500	
Cr	53	45	1	96.26	96.26	ppb	500	
Mn	55	45	1	1.34	1.34	ppb	500	
Fe	57	45	1	3832.54	3832.54	ppb	500	>LDR
Co	59	89	1	5.17	5.17	ppb	500	
Ni	60	89	1	34.31	34.31	ppb	500	
Cu	63	89	1	287.89	287.89	ppb	500	
Zn	66	89	1	-3.84	-3.84	ppb	500	
As	75	115	1	3.37	3.37	ppb	500	
(As)	77	115	1	-3.51	-3.51	ppb	500	
Se	82	115	1	2.44	2.44	ppb	500	
(As)	83	115	1	764.55	764.55	ppb	500	>LDR
Sr	88	115	1	3619.80	3619.80	ppb	500	>LDR
Mo	95	115	1	78.46	78.46	ppb	500	
Mo	98	115	1	85.44	85.44	ppb	500	
(Mo)	99	115	1	-13867.72	-13867.72	ppb	500	
(Cd)	106	115	1	1.16	1.16	ppb	500	
Ag	107	115	1	0.06	0.06	ppb	500	
(Cd)	108	115	1	2.51	2.51	ppb	500	
Cd	111	115	1	0.38	0.38	ppb	500	
Sn	118	115	1	0.90	0.90	ppb	500	
Sb	121	159	1	29.32	29.32	ppb	500	
Ba	137	159	1	373.22	373.22	ppb	500	
Tl	205	209	1	0.03	0.03	ppb	500	
(Pb)	206	209	1	0.00	0.00	ppb	500	
(Pb)	207	209	1	-0.02	-0.02	ppb	500	
Pb	208	209	1	-0.01	-0.01	ppb	500	

QC ISTD Table

Element	m/z	Tune Step	CPS	%RSD	Reference CPS	%Recovery	Lower Limit	Upper Limit	QC Flag
Sc	45	1	1614759	4.99	995521	162.2	60	125	IS Failed
Y	89	1	1471278	2.24	1447937	101.6	60	125	
In	115	1	1158208	0.99	1251805	92.5	60	125	
Tb	159	1	1599679	0.82	1678487	95.3	60	125	
Bi	209	1	760880	1.67	881544	86.3	60	125	

TuneStep	TuneFile
1	nogas.u

Sample Report

Sample Name	**TM1 WS L1360**
Data File Name	**056SMPL.D**
DataPath	**C:\ICPMH\1\DATA\061614CC.B**
Acq Date Time	**2014-06-16T18:16:05-04:00**
Type	**Sample**
VialNumber	**2102**
Dilution	**1**
Comment	
Operator	
ISTDRefDataFileName	**014CALB.D**
SamplePassFail	**Fail**
ISTD PassFail	**Pass**

QC Analyte Table

Element	m/z	ISTD	Tune Step	Meas Value	FinalConcentration	Units	High Value	QC Flag
Be	9	45	1	9.05	9.05	ppb	500	
B	11	45	1	9.49	9.49	ppb	500	
Na	23	45	1	813.33	813.33	ppb	500	>LDR
Mg	24	45	1	4.69	4.69	ppb	500	
Al	27	45	1	174.52	174.52	ppb	500	
P	31	45	1	12.00	12.00	ppb	500	
S	32	45	1	-874.62	-874.62	ppb	500	
K	39	45	1	65.42	65.42	ppb	500	
Ca	44	45	1	127.93	127.93	ppb	500	
Ti	47	45	1	0.13	0.13	ppb	500	
V	51	45	1	0.95	0.95	ppb	500	
Cr (V)	52	45	1	45.27	45.27	ppb	500	
Cr	53	45	1	40.35	40.35	ppb	500	
Mn	55	45	1	369.87	369.87	ppb	500	
Fe	57	45	1	1165.74	1165.74	ppb	500	>LDR
Co	59	89	1	0.01	0.01	ppb	500	
Ni	60	89	1	49.00	49.00	ppb	500	
Cu	63	89	1	944.19	944.19	ppb	500	>LDR
Zn	66	89	1	419.62	419.62	ppb	500	
As	75	115	1	8.47	8.47	ppb	500	
(As)	77	115	1	24.44	24.44	ppb	500	
Se	82	115	1	29.02	29.02	ppb	500	
(As)	83	115	1	186.88	186.88	ppb	500	
Sr	88	115	1	1.37	1.37	ppb	500	
Mo	95	115	1	-0.85	-0.85	ppb	500	
Mo	98	115	1	-0.84	-0.84	ppb	500	
(Mo)	99	115	1	-14492.65	-14492.65	ppb	500	
(Cd)	106	115	1	15.85	15.85	ppb	500	
Ag	107	115	1	0.00	0.00	ppb	500	
(Cd)	108	115	1	15.45	15.45	ppb	500	
Cd	111	115	1	14.74	14.74	ppb	500	
Sn	118	115	1	0.06	0.06	ppb	500	
Sb	121	159	1	-0.03	-0.03	ppb	500	
Ba	137	159	1	0.24	0.24	ppb	500	
Tl	205	209	1	-0.01	-0.01	ppb	500	
(Pb)	206	209	1	9.88	9.88	ppb	500	
(Pb)	207	209	1	9.56	9.56	ppb	500	
Pb	208	209	1	9.79	9.79	ppb	500	

QC ISTD Table

Element	m/z	Tune Step	CPS	%RSD	Reference CPS	%Recovery	Lower Limit	Upper Limit	QC Flag
Sc	45	1	998553	2.95	995521	100.3	60	125	
Y	89	1	1421866	3.90	1447937	98.2	60	125	
In	115	1	1164041	2.99	1251805	93.0	60	125	
Tb	159	1	1534821	2.68	1678487	91.4	60	125	
Bi	209	1	795686	3.77	881544	90.3	60	125	

TuneStep	TuneFile
1	nogas.u

Continuing Calibration Blank (CCB) - US EPA Method 200.8

Sample Name	**Blank**
Data File Name	**0572CCB.D**
DataPath	**C:\ICPMH\1\DATA\061614CC.B**
Acq Date Time	**2014-06-16T18:20:55-04:00**
Type	**2-CCB**
VialNumber	**1101**
Dilution	**1**
Comment	
Operator	
ISTDRefDataFileName	**014CALB.D**
SamplePassFail	**Fail**
ISTD PassFail	**Pass**

QC Analyte Table

Element	m/z	ISTD	Tune Step	Meas Value	Units	QC High	QC Flag
Be	9	45	1	0.03	ppb	0.05	
Na	23	45	1	474.18	ppb	0.5	>MDL
Mg	24	45	1	5.54	ppb	5	>MDL
Al	27	45	1	0.07	ppb	0.55	
Ca	44	45	1	65.24	ppb	5	>MDL
Ti	47	45	1	0.02	ppb	0.05	
V	51	45	1	0.17	ppb	0.05	>MDL
Cr (V)	52	45	1	0.54	ppb	0.05	>MDL
Mn	55	45	1	0.39	ppb	0.5	
Fe	57	45	1	37.52	ppb	0.5	>MDL
Co	59	89	1	-0.01	ppb	0.05	
Ni	60	89	1	-13.45	ppb	0.05	
Cu	63	89	1	1.96	ppb	0.05	>MDL
Zn	66	89	1	-5.91	ppb	0.05	
As	75	115	1	0.14	ppb	0.05	>MDL
(As)	77	115	1	-6.01	ppb	0.05	
Se	82	115	1	0.05	ppb	0.05	>MDL
(As)	83	115	1	285.24	ppb	0.05	>MDL
Mo	98	115	1	-1.14	ppb	0.05	
(Cd)	106	115	1	0.35	ppb	0.05	>MDL
Ag	107	115	1	0.00	ppb	0.005	
(Cd)	108	115	1	0.47	ppb	0.05	>MDL
Cd	111	115	1	0.02	ppb	0.05	
Sn	118	115	1	0.02	ppb	0.05	
Sb	121	159	1	-0.02	ppb	0.05	
Ba	137	159	1	0.13	ppb	0.05	>MDL
Tl	205	209	1	-0.01	ppb	0.05	
(Pb)	206	209	1	-0.02	ppb	0.05	
(Pb)	207	209	1	-0.03	ppb	0.05	
Pb	208	209	1	-0.02	ppb	0.05	

QC ISTD Table

Element	m/z	Tune Step	CPS	%RSD	Reference CPS	%Recovery	Lower Limit	Upper Limit	QC Flag
Sc	45	1	910364	15.53	995521	91.4	60	125	
Y	89	1	1322530	17.87	1447937	91.3	60	125	
In	115	1	1088736	14.87	1251805	87.0	60	125	
Tb	159	1	1414751	16.25	1678487	84.3	60	125	
Bi	209	1	750151	14.55	881544	85.1	60	125	

TuneStep	TuneFile
1	nogas.u

Continuing Calibration Blank (CCB) - US EPA Method 200.8

Sample Name	**Blank**
Data File Name	**0592CCB.D**
DataPath	**C:\ICPMH\1\DATA\061614CC.B**
Acq Date Time	**2014-06-16T18:30:37-04:00**
Type	**2-CCB**
VialNumber	**1101**
Dilution	**1**
Comment	
Operator	
ISTDRefDataFileName	**014CALB.D**
SamplePassFail	**Fail**
ISTD PassFail	**Pass**

QC Analyte Table

Element	m/z	ISTD	Tune Step	Meas Value	Units	QC High	QC Flag
Be	9	45	1	0.04	ppb	0.05	
Na	23	45	1	250.23	ppb	0.5	>MDL
Mg	24	45	1	4.81	ppb	5	
Al	27	45	1	-0.65	ppb	0.55	
Ca	44	45	1	17.74	ppb	5	>MDL
Ti	47	45	1	0.02	ppb	0.05	
V	51	45	1	0.11	ppb	0.05	>MDL
Cr (V)	52	45	1	0.28	ppb	0.05	>MDL
Mn	55	45	1	0.29	ppb	0.5	
Fe	57	45	1	21.51	ppb	0.5	>MDL
Co	59	89	1	0.00	ppb	0.05	
Ni	60	89	1	-13.44	ppb	0.05	
Cu	63	89	1	1.00	ppb	0.05	>MDL
Zn	66	89	1	-6.12	ppb	0.05	
As	75	115	1	0.16	ppb	0.05	>MDL
(As)	77	115	1	-6.02	ppb	0.05	
Se	82	115	1	-0.07	ppb	0.05	
(As)	83	115	1	118.44	ppb	0.05	>MDL
Mo	98	115	1	-0.39	ppb	0.05	
(Cd)	106	115	1	0.33	ppb	0.05	>MDL
Ag	107	115	1	0.12	ppb	0.005	>MDL
(Cd)	108	115	1	0.19	ppb	0.05	>MDL
Cd	111	115	1	0.05	ppb	0.05	
Sn	118	115	1	0.07	ppb	0.05	>MDL
Sb	121	159	1	0.12	ppb	0.05	>MDL
Ba	137	159	1	0.13	ppb	0.05	>MDL
Tl	205	209	1	0.00	ppb	0.05	
(Pb)	206	209	1	-0.04	ppb	0.05	
(Pb)	207	209	1	-0.06	ppb	0.05	
Pb	208	209	1	-0.04	ppb	0.05	

QC ISTD Table

Element	m/z	Tune Step	CPS	%RSD	Reference CPS	%Recovery	Lower Limit	Upper Limit	QC Flag
Sc	45	1	1000589	1.21	995521	100.5	[illegible]	125	
Y	89	1	1465939	0.98	1447937	101.2	60	125	
In	115	1	1237074	3.00	1251805	98.8	60	125	
Tb	159	1	1590716	1.38	1678487	94.8	60	125	
Bi	209	1	833804	0.26	881544	94.6	60	125	

TuneStep	TuneFile
1	nogas.u

Sample Report

Sample Name	**14061143 1:10 DIG**
Data File Name	**047SMPL.D**
DataPath	**C:\ICPMH\1\DATA\061614CC.B**
Acq Date Time	**2014-06-16T17:32:22-04:00**
Type	**Sample**
VialNumber	**2303**
Dilution	**1**
Comment	
Operator	
ISTDRefDataFileName	**014CALB.D**
SamplePassFail	**Fail**
ISTD PassFail	**Pass**

QC Analyte Table

Element	m/z	ISTD	Tune Step	Meas Value	FinalConcentration	Units	High Value	QC Flag
Be	9	45	1	0.03	0.03	ppb	500	
B	11	45	1	-6.45	-6.45	ppb	500	
Na	23	45	1	15.76	15.76	ppb	500	
Mg	24	45	1	3.98	3.98	ppb	500	
Al	27	45	1	1.93	1.93	ppb	500	
P	31	45	1	-28.88	-28.88	ppb	500	
S	32	45	1	1668.15	1668.15	ppb	500	>LDR
K	39	45	1	-4.19	-4.19	ppb	500	
Ca	44	45	1	-42.15	-42.15	ppb	500	
Ti	47	45	1	0.12	0.12	ppb	500	
V	51	45	1	0.03	0.03	ppb	500	
Cr (V)	52	45	1	0.08	0.08	ppb	500	
Cr	53	45	1	0.11	0.11	ppb	500	
Mn	55	45	1	0.31	0.31	ppb	500	
Fe	57	45	1	-10.64	-10.64	ppb	500	
Co	59	89	1	0.01	0.01	ppb	500	
Ni	60	89	1	-12.89	-12.89	ppb	500	
Cu	63	89	1	0.87	0.87	ppb	500	
Zn	66	89	1	-4.11	-4.11	ppb	500	
As	75	115	1	0.11	0.11	ppb	500	
(As)	77	115	1	-6.08	-6.08	ppb	500	
Se	82	115	1	-0.26	-0.26	ppb	500	
(As)	83	115	1	9.62	9.62	ppb	500	
Sr	88	115	1	0.02	0.02	ppb	500	
Mo	95	115	1	-1.17	-1.17	ppb	500	
Mo	98	115	1	-1.20	-1.20	ppb	500	
(Mo)	99	115	1	-13885.78	-13885.78	ppb	500	
(Cd)	106	115	1	-0.55	-0.55	ppb	500	
Ag	107	115	1	-0.01	-0.01	ppb	500	
(Cd)	108	115	1	0.10	0.10	ppb	500	
Cd	111	115	1	-0.01	-0.01	ppb	500	
Sn	118	115	1	0.14	0.14	ppb	500	
Sb	121	159	1	-0.02	-0.02	ppb	500	
Ba	137	159	1	0.15	0.15	ppb	500	
Tl	205	209	1	0.00	0.00	ppb	500	
(Pb)	206	209	1	0.01	0.01	ppb	500	
(Pb)	207	209	1	-0.02	-0.02	ppb	500	
Pb	208	209	1	-0.01	-0.01	ppb	500	

QC ISTD Table

Element	m/z	Tune Step	CPS	%RSD	Reference CPS	%Recovery	Lower Limit	Upper Limit	QC Flag
Sc	45	1	1085616	17.42	995521	109.1	60	125	
Y	89	1	1490214	13.45	1447937	102.9	60	125	
In	115	1	1343688	18.78	1251805	107.3	60	125	
Tb	159	1	1711366	13.08	1678487	102.0	60	125	
Bi	209	1	923876	12.86	881544	104.8	60	125	

TuneStep	TuneFile
1	nogas.u

Sample Report

Sample Name	**14061144 1:10 DIG**
Data File Name	**048SMPL.D**
DataPath	**C:\ICPMH\1\DATA\061614CC.B**
Acq Date Time	**2014-06-16T17:37:16-04:00**
Type	**Sample**
VialNumber	**2304**
Dilution	**1**
Comment	
Operator	
ISTDRefDataFileName	**014CALB.D**
SamplePassFail	**Fail**
ISTD PassFail	**Pass**

QC Analyte Table

Element	m/z	ISTD	Tune Step	Meas Value	FinalConcentration	Units	High Value	QC Flag
Be	9	45	1	-0.01	-0.01	ppb	500	
B	11	45	1	0.76	0.76	ppb	500	
Mg	24	45	1	34.22	34.22	ppb	500	
Al	27	45	1	55.03	55.03	ppb	500	
P	31	45	1	-23.57	-23.57	ppb	500	
S	32	45	1	2008.58	2008.58	ppb	500	>LDR
K	39	45	1	2015.23	2015.23	ppb	500	>LDR
Ca	44	45	1	54295.58	54295.58	ppb	500	>LDR
Ti	47	45	1	0.73	0.73	ppb	500	
V	51	45	1	5.12	5.12	ppb	500	
Cr (V)	52	45	1	27.45	27.45	ppb	500	
Cr	53	45	1	24.58	24.58	ppb	500	
Mn	55	45	1	0.56	0.56	ppb	500	
Fe	57	45	1	745.99	745.99	ppb	500	>LDR
Co	59	89	1	1.02	1.02	ppb	500	
Ni	60	89	1	-5.15	-5.15	ppb	500	
Cu	63	89	1	46.18	46.18	ppb	500	
Zn	66	89	1	-2.59	-2.59	ppb	500	
As	75	115	1	0.35	0.35	ppb	500	
(As)	77	115	1	-5.78	-5.78	ppb	500	
Se	82	115	1	0.06	0.06	ppb	500	
(As)	83	115	1	69.58	69.58	ppb	500	
Sr	88	115	1	796.62	796.62	ppb	500	>LDR
Mo	95	115	1	12.24	12.24	ppb	500	
Mo	98	115	1	12.26	12.26	ppb	500	
(Mo)	99	115	1	-16550.72	-16550.72	ppb	500	
(Cd)	106	115	1	-0.08	-0.08	ppb	500	
Ag	107	115	1	-0.01	-0.01	ppb	500	
(Cd)	108	115	1	0.44	0.44	ppb	500	
Cd	111	115	1	0.03	0.03	ppb	500	
Sn	118	115	1	0.19	0.19	ppb	500	
Sb	121	159	1	3.07	3.07	ppb	500	
Ba	137	159	1	64.06	64.06	ppb	500	
Tl	205	209	1	-0.02	-0.02	ppb	500	
(Pb)	206	209	1	0.00	0.00	ppb	500	
(Pb)	207	209	1	-0.01	-0.01	ppb	500	
Pb	208	209	1	0.00	0.00	ppb	500	

QC ISTD Table

Element	m/z	Tune Step	CPS	%RSD	Reference CPS	%Recovery	Lower Limit	Upper Limit	QC Flag
Sc	45	1	1153073	17.88	995521	115.8	60	125	
Y	89	1	1456448	13.62	1447937	100.6	60	125	
In	115	1	1267404	16.55	1251805	101.2	60	125	
Tb	159	1	1693402	13.10	1678487	100.9	60	125	
Bi	209	1	842339	11.20	881544	95.6	60	125	

TuneStep	TuneFile
1	nogas.u

Sample Report

Sample Name	**14061145 1:10 DIG**
Data File Name	**049SMPL.D**
DataPath	**C:\ICPMH\1\DATA\061614CC.B**
Acq Date Time	**2014-06-16T17:42:08-04:00**
Type	**Sample**
VialNumber	**2305**
Dilution	**1**
Comment	
Operator	
ISTDRefDataFileName	**014CALB.D**
SamplePassFail	**Fail**
ISTD PassFail	**Pass**

QC Analyte Table

Element	m/z	ISTD	Tune Step	Meas Value	FinalConcentration	Units	High Value	QC Flag
Be	9	45	1	-0.02	-0.02	ppb	500	
B	11	45	1	-3.38	-3.38	ppb	500	
Mg	24	45	1	44.76	44.76	ppb	500	
Al	27	45	1	19.53	19.53	ppb	500	
P	31	45	1	-27.69	-27.69	ppb	500	
S	32	45	1	2346.33	2346.33	ppb	500	>LDR
K	39	45	1	1366.16	1366.16	ppb	500	>LDR
Ca	44	45	1	42228.19	42228.19	ppb	500	>LDR
Ti	47	45	1	0.47	0.47	ppb	500	
V	51	45	1	5.52	5.52	ppb	500	
Cr (V)	52	45	1	24.91	24.91	ppb	500	
Cr	53	45	1	21.77	21.77	ppb	500	
Mn	55	45	1	0.38	0.38	ppb	500	
Fe	57	45	1	560.05	560.05	ppb	500	>LDR
Co	59	89	1	0.63	0.63	ppb	500	
Ni	60	89	1	-7.71	-7.71	ppb	500	
Cu	63	89	1	38.19	38.19	ppb	500	
Zn	66	89	1	-2.52	-2.52	ppb	500	
As	75	115	1	0.39	0.39	ppb	500	
(As)	77	115	1	-5.91	-5.91	ppb	500	
Se	82	115	1	0.03	0.03	ppb	500	
(As)	83	115	1	92.33	92.33	ppb	500	
Sr	88	115	1	623.29	623.29	ppb	500	>LDR
Mo	95	115	1	10.55	10.55	ppb	500	
Mo	98	115	1	10.50	10.50	ppb	500	
(Mo)	99	115	1	-16265.90	-16265.90	ppb	500	
(Cd)	106	115	1	-0.36	-0.36	ppb	500	
Ag	107	115	1	-0.01	-0.01	ppb	500	
(Cd)	108	115	1	0.20	0.20	ppb	500	
Cd	111	115	1	0.01	0.01	ppb	500	
Sn	118	115	1	0.18	0.18	ppb	500	
Sb	121	159	1	3.82	3.82	ppb	500	
Ba	137	159	1	54.21	54.21	ppb	500	
Tl	205	209	1	-0.03	-0.03	ppb	500	
(Pb)	206	209	1	-0.08	-0.08	ppb	500	
(Pb)	207	209	1	-0.08	-0.08	ppb	500	
Pb	208	209	1	-0.09	-0.09	ppb	500	

QC ISTD Table

Element	m/z	Tune Step	CPS	%RSD	Reference CPS	%Recovery	Lower Limit	Upper Limit	QC Flag
Sc	45	1	1169070	9.23	995521	117.4	60	125	
Y	89	1	1448008	8.80	1447937	100.0	60	125	
In	115	1	1241252	7.46	1251805	99.2	60	125	
Tb	159	1	1635235	9.95	1678487	97.4	60	125	
Bi	209	1	831097	8.49	881544	94.3	60	125	

TuneStep	TuneFile
1	nogas.u

Sample Report

Sample Name	**14061143 B**
Data File Name	**050SMPL.D**
DataPath	**C:\ICPMH\1\DATA\061614CC.B**
Acq Date Time	**2014-06-16T17:46:59-04:00**
Type	**Sample**
VialNumber	**2306**
Dilution	**1**
Comment	
Operator	
ISTDRefDataFileName	**014CALB.D**
SamplePassFail	**Fail**
ISTD PassFail	**Pass**

QC Analyte Table

Element	m/z	ISTD	Tune Step	Meas Value	FinalConcentration	Units	High Value	QC Flag
Be	9	45	1	-0.02	-0.02	ppb	500	
B	11	45	1	18.98	18.98	ppb	500	
Mg	24	45	1	157.38	157.38	ppb	500	
Al	27	45	1	239.15	239.15	ppb	500	
P	31	45	1	-7.71	-7.71	ppb	500	
S	32	45	1	4484.17	4484.17	ppb	500	>LDR
K	39	45	1	11655.47	11655.47	ppb	500	>LDR
Ca	44	45	1	314675.76	314675.76	ppb	500	>LDR
Ti	47	45	1	4.28	4.28	ppb	500	
V	51	45	1	26.80	26.80	ppb	500	
Cr (V)	52	45	1	156.02	156.02	ppb	500	
Cr	53	45	1	155.14	155.14	ppb	500	
Mn	55	45	1	1.75	1.75	ppb	500	
Fe	57	45	1	4396.50	4396.50	ppb	500	>LDR
Co	59	89	1	8.00	8.00	ppb	500	
Ni	60	89	1	44.81	44.81	ppb	500	
Cu	63	89	1	303.38	303.38	ppb	500	
Zn	66	89	1	-1.00	-1.00	ppb	500	
As	75	115	1	2.37	2.37	ppb	500	
(As)	77	115	1	-2.85	-2.85	ppb	500	
Se	82	115	1	3.50	3.50	ppb	500	
(As)	83	115	1	1409.93	1409.93	ppb	500	>LDR
Sr	88	115	1	6806.26	6806.26	ppb	500	>LDR
Mo	95	115	1	147.07	147.07	ppb	500	
Mo	98	115	1	146.23	146.23	ppb	500	
(Mo)	99	115	1	-15060.42	-15060.42	ppb	500	
(Cd)	106	115	1	0.99	0.99	ppb	500	
Ag	107	115	1	0.05	0.05	ppb	500	
(Cd)	108	115	1	3.75	3.75	ppb	500	
Cd	111	115	1	0.16	0.16	ppb	500	
Sn	118	115	1	1.42	1.42	ppb	500	
Sb	121	159	1	25.81	25.81	ppb	500	
Ba	137	159	1	525.25	525.25	ppb	500	>LDR
Tl	205	209	1	0.01	0.01	ppb	500	
(Pb)	206	209	1	0.31	0.31	ppb	500	
(Pb)	207	209	1	0.27	0.27	ppb	500	
Pb	208	209	1	0.29	0.29	ppb	500	

QC ISTD Table

Element	m/z	Tune Step	CPS	%RSD	Reference CPS	%Recovery	Lower Limit	Upper Limit	QC Flag
Sc	45	1	1457862	14.67	995521	146.4	60	125	IS Failed
Y	89	1	1372168	15.31	1447937	94.8	60	125	
In	115	1	1062340	12.75	1251805	84.9	60	125	
Tb	159	1	1504011	14.89	1678487	89.6	60	125	
Bi	209	1	711924	9.37	881544	80.8	60	125	

TuneStep	TuneFile
1	nogas.u

Continuing Calibration Blank (CCB) - US EPA Method 200.8

Sample Name	**Blank**
Data File Name	**0512CCB.D**
DataPath	**C:\ICPMH\1\DATA\061614CCB**
Acq Date Time	**2014-06-16T17:51:47-04:00**
Type	**2-CCB**
VialNumber	**1101**
Dilution	**1**
Comment	
Operator	
ISTDRefDataFileName	**014CALB.D**
SamplePassFail	**Fail**
ISTD PassFail	**Pass**

QC Analyte Table

Element	m/z	ISTD	Tune Step	Meas Value	Units	QC High	QC Flag
Be	9	45	1	0.02	ppb	0.05	
Na	23	45	1	583.29	ppb	0.5	>MDL
Mg	24	45	1	4.92	ppb	5	
Al	27	45	1	0.97	ppb	0.55	>MDL
Ca	44	45	1	94.63	ppb	5	>MDL
Ti	47	45	1	0.01	ppb	0.05	
V	51	45	1	0.19	ppb	0.05	>MDL
Cr (V)	52	45	1	0.64	ppb	0.05	>MDL
Mn	55	45	1	0.22	ppb	0.5	
Fe	57	45	1	6.63	ppb	0.5	>MDL
Co	59	89	1	-0.01	ppb	0.05	
Ni	60	89	1	-13.21	ppb	0.05	
Cu	63	89	1	1.02	ppb	0.05	>MDL
Zn	66	89	1	-5.21	ppb	0.05	
As	75	115	1	0.12	ppb	0.05	>MDL
(As)	77	115	1	-6.16	ppb	0.05	
Se	82	115	1	-0.22	ppb	0.05	
(As)	83	115	1	131.65	ppb	0.05	>MDL
Mo	98	115	1	-1.05	ppb	0.05	
(Cd)	106	115	1	0.12	ppb	0.05	>MDL
Ag	107	115	1	-0.01	ppb	0.005	
(Cd)	108	115	1	0.65	ppb	0.05	>MDL
Cd	111	115	1	-0.02	ppb	0.05	
Sn	118	115	1	0.03	ppb	0.05	
Sb	121	159	1	-0.04	ppb	0.05	
Ba	137	159	1	0.20	ppb	0.05	>MDL
Tl	205	209	1	-0.02	ppb	0.05	
(Pb)	206	209	1	-0.03	ppb	0.05	
(Pb)	207	209	1	-0.04	ppb	0.05	
Pb	208	209	1	-0.04	ppb	0.05	

QC ISTD Table

Element	m/z	Tune Step	CPS	%RSD	Reference CPS	%Recovery	Lower Limit	Upper Limit	QC Flag
Sc	45	1	1097259	21.97	995521	110.2	60	125	
Y	89	1	1482484	21.77	1447937	102.4	60	125	
In	115	1	1319998	23.03	1251805	105.4	60	125	
Tb	159	1	1659749	21.11	1678487	98.9	60	125	
Bi	209	1	916525	23.10	881544	104.0	60	125	

TuneStep	TuneFile
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Continuing Calibration Blank (CCB) - US EPA Method 200.8

Sample Name	**Blank**
Data File Name	**0532CCB.D**
DataPath	**C:\ICPMH\1\DATA\061614CC.B**
Acq Date Time	**2014-06-16T18:01:28-04:00**
Type	**2-CCB**
VialNumber	**1101**
Dilution	**1**
Comment	
Operator	
ISTDRefDataFileName	**014CALB.D**
SamplePassFail	**Fail**
ISTD PassFail	**Pass**

QC Analyte Table

Element	m/z	ISTD	Tune Step	Meas Value	Units	QC High	QC Flag
Be	9	45	1	0.02	ppb	0.05	
Na	23	45	1	142.98	ppb	0.5	>MDL
Mg	24	45	1	4.84	ppb	5	
Al	27	45	1	-0.74	ppb	0.55	
Ca	44	45	1	1.15	ppb	5	
Ti	47	45	1	0.02	ppb	0.05	
V	51	45	1	0.08	ppb	0.05	>MDL
Cr (V)	52	45	1	0.17	ppb	0.05	>MDL
Mn	55	45	1	0.29	ppb	0.5	
Fe	57	45	1	0.67	ppb	0.5	>MDL
Co	59	89	1	0.00	ppb	0.05	
Ni	60	89	1	-13.18	ppb	0.05	
Cu	63	89	1	0.38	ppb	0.05	>MDL
Zn	66	89	1	-5.88	ppb	0.05	
As	75	115	1	0.15	ppb	0.05	>MDL
(As)	77	115	1	-6.03	ppb	0.05	
Se	82	115	1	-0.14	ppb	0.05	
(As)	83	115	1	-9.80	ppb	0.05	
Mo	98	115	1	-0.31	ppb	0.05	
(Cd)	106	115	1	-0.20	ppb	0.05	
Ag	107	115	1	0.14	ppb	0.005	>MDL
(Cd)	108	115	1	0.34	ppb	0.05	>MDL
Cd	111	115	1	-0.01	ppb	0.05	
Sn	118	115	1	0.09	ppb	0.05	>MDL
Sb	121	159	1	0.17	ppb	0.05	>MDL
Ba	137	159	1	0.11	ppb	0.05	>MDL
Tl	205	209	1	0.00	ppb	0.05	
(Pb)	206	209	1	-0.01	ppb	0.05	
(Pb)	207	209	1	-0.04	ppb	0.05	
Pb	208	209	1	-0.03	ppb	0.05	

QC ISTD Table

Element	m/z	Tune Step	CPS	%RSD	Reference CPS	%Recovery	Lower Limit	Upper Limit	QC Flag
Sc	45	1	1095629	24.43	995521	110.1	60	125	
Y	89	1	1495016	20.75	1447937	103.3	60	125	
In	115	1	1345626	22.28	1251805	107.5	60	125	
Tb	159	1	1670693	21.46	1678487	99.5	60	125	
Bi	209	1	886214	20.47	881544	100.5	60	125	

TuneStep	TuneFile
1	nogas.u

Sample Report

Sample Name	**14061144 B**
Data File Name	**054SMPL.D**
DataPath	**C:\ICPMH\1\DATA\061614CC.B**
Acq Date Time	**2014-06-16T18:06:21-04:00**
Type	**Sample**
VialNumber	**2307**
Dilution	**1**
Comment	
Operator	
ISTDRefDataFileName	**014CALB.D**
SamplePassFail	**Fail**
ISTD PassFail	**Pass**

QC Analyte Table

Element	m/z	ISTD	Tune Step	Meas Value	FinalConcentration	Units	High Value	QC Flag
Be	9	45	1	0.00	0.00	ppb	500	
B	11	45	1	3.45	3.45	ppb	500	
Mg	24	45	1	235.72	235.72	ppb	500	
Al	27	45	1	100.25	100.25	ppb	500	
P	31	45	1	-21.42	-21.42	ppb	500	
S	32	45	1	5169.45	5169.45	ppb	500	>LDR
K	39	45	1	7802.21	7802.21	ppb	500	>LDR
Ca	44	45	1	223031.82	223031.82	ppb	500	>LDR
Ti	47	45	1	2.38	2.38	ppb	500	
V	51	45	1	23.64	23.64	ppb	500	
Cr (V)	52	45	1	112.99	112.99	ppb	500	
Cr	53	45	1	106.13	106.13	ppb	500	
Mn	55	45	1	1.69	1.69	ppb	500	
Fe	57	45	1	3514.37	3514.37	ppb	500	>LDR
Co	59	89	1	4.48	4.48	ppb	500	
Ni	60	89	1	26.49	26.49	ppb	500	
Cu	63	89	1	237.43	237.43	ppb	500	
Zn	66	89	1	1.67	1.67	ppb	500	
As	75	115	1	2.24	2.24	ppb	500	
(As)	77	115	1	-4.06	-4.06	ppb	500	
Se	82	115	1	1.92	1.92	ppb	500	
(As)	83	115	1	690.31	690.31	ppb	500	>LDR
Sr	88	115	1	4642.39	4642.39	ppb	500	>LDR
Mo	95	115	1	82.34	82.34	ppb	500	
Mo	98	115	1	86.10	86.10	ppb	500	
(Mo)	99	115	1	-14144.02	-14144.02	ppb	500	
(Cd)	106	115	1	0.84	0.84	ppb	500	
Ag	107	115	1	0.07	0.07	ppb	500	
(Cd)	108	115	1	2.54	2.54	ppb	500	
Cd	111	115	1	0.20	0.20	ppb	500	
Sn	118	115	1	1.05	1.05	ppb	500	
Sb	121	159	1	24.90	24.90	ppb	500	
Ba	137	159	1	381.19	381.19	ppb	500	
Tl	205	209	1	0.00	0.00	ppb	500	
(Pb)	206	209	1	0.29	0.29	ppb	500	
(Pb)	207	209	1	0.24	0.24	ppb	500	
Pb	208	209	1	0.28	0.28	ppb	500	

QC ISTD Table

Element	m/z	Tune Step	CPS	%RSD	Reference CPS	%Recovery	Lower Limit	Upper Limit	QC Flag
Sc	45	1	1565559	4.17	995521	157.3	60	125	IS Failed
Y	89	1	1503071	0.39	1447937	103.8	60	125	
In	115	1	1178661	0.94	1251805	94.2	60	125	
Tb	159	1	1649120	0.98	1678487	98.3	60	125	
Bi	209	1	782335	3.25	881544	88.7	60	125	

TuneStep	TuneFile
1	nogas.u

Continuing Calibration Blank (CCB) - US EPA Method 200.8

Sample Name	**Blank**
Data File Name	**0382CCB.D**
DataPath	**C:\ICPMH\1\DATA\061614CC.B**
Acq Date Time	**2014-06-16T16:48:27-04:00**
Type	**2-CCB**
VialNumber	**1101**
Dilution	**1**
Comment	
Operator	
ISTDRefDataFileName	**014CALB.D**
SamplePassFail	**Fail**
ISTD PassFail	**Pass**

QC Analyte Table

Element	m/z	ISTD	Tune Step	Meas Value	Units	QC High	QC Flag
Be	9	45	1	-0.02	ppb	0.05	
Na	23	45	1	13.70	ppb	0.5	>MDL
Mg	24	45	1	1.60	ppb	5	
Al	27	45	1	0.99	ppb	0.55	>MDL
Ca	44	45	1	-59.03	ppb	5	
Ti	47	45	1	-0.02	ppb	0.05	
V	51	45	1	0.01	ppb	0.05	
Cr (V)	52	45	1	0.06	ppb	0.05	>MDL
Mn	55	45	1	0.11	ppb	0.5	
Fe	57	45	1	-7.63	ppb	0.5	
Co	59	89	1	-0.03	ppb	0.05	
Ni	60	89	1	-12.85	ppb	0.05	
Cu	63	89	1	0.00	ppb	0.05	
Zn	66	89	1	-5.39	ppb	0.05	
As	75	115	1	0.11	ppb	0.05	>MDL
(As)	77	115	1	-6.14	ppb	0.05	
Se	82	115	1	-0.24	ppb	0.05	
(As)	83	115	1	-149.06	ppb	0.05	
Mo	98	115	1	-1.27	ppb	0.05	
(Cd)	106	115	1	-0.11	ppb	0.05	
Ag	107	115	1	-0.01	ppb	0.005	
(Cd)	108	115	1	-0.01	ppb	0.05	
Cd	111	115	1	-0.01	ppb	0.05	
Sn	118	115	1	-0.02	ppb	0.05	
Sb	121	159	1	-0.07	ppb	0.05	
Ba	137	159	1	0.02	ppb	0.05	
Tl	205	209	1	-0.03	ppb	0.05	
(Pb)	206	209	1	0.03	ppb	0.05	
(Pb)	207	209	1	0.01	ppb	0.05	
Pb	208	209	1	0.01	ppb	0.05	

QC ISTD Table

Element	m/z	Tune Step	CPS	%RSD	Reference CPS	%Recovery	Lower Limit	Upper Limit	QC Flag
Sc	45	1	1069421	7.79	995521	107.4	60	125	
Y	89	1	1464683	9.57	1447937	101.2	60	125	
In	115	1	1334353	9.35	1251805	106.6	60	125	
Tb	159	1	1705055	7.65	1678487	101.6	60	125	
Bi	209	1	887179	6.33	881544	100.6	60	125	

TuneStep	TuneFile
1	nogas.u

Continuing Calibration Verification (CCV) - US EPA Method 6020

Sample Name	**10/100/1000ppb**
Data File Name	**0396CCV.D**
DataPath	**C:\ICPMH\1\DATA\061614CC.B**
Acq Date Time	**2014-06-16T16:53:20-04:00**
Type	**6-CCV**
VialNumber	**1104**
Dilution	**1**
Comment	
Operator	
ISTDRefDataFileName	**014CALB.D**
SamplePassFail	**Fail**
ISTD PassFail	**Pass**

QC Analyte Table

Element	m/z	ISTD	Tune Step	Meas Value	Units	ExpectedValue	%Recovery	%QC Low	%QC High	QC Flag
Be	9	45	1	107.37	ppb	100	107.4	90	110	
B	11	45	1	112.43	ppb	100	112.4	90	110	>+/-10%
Na	23	45	1	116.33	ppb	100	116.3	90	110	>+/-10%
Mg	24	45	1	109.60	ppb	100	109.6	90	110	
Al	27	45	1	105.86	ppb	100	105.9	90	110	
P	31	45	1	124.58	ppb	100	124.6	90	110	>+/-10%
S	32	45	1	-477.77	ppb	100	-477.8	90	110	>+/-10%
K	39	45	1	111.86	ppb	100	111.9	90	110	>+/-10%
Ca	44	45	1	26.95	ppb	100	26.9	90	110	>+/-10%
Ti	47	45	1	99.44	ppb	100	99.4	90	110	
V	51	45	1	110.43	ppb	100	110.4	90	110	>+/-10%
Cr (V)	52	45	1	107.33	ppb	100	107.3	90	110	
Cr	53	45	1	98.41	ppb	100	98.4	90	110	
Mn	55	45	1	109.11	ppb	100	109.1	90	110	
Fe	57	45	1	96.72	ppb	100	96.7	90	110	
Co	59	89	1	105.16	ppb	100	105.2	90	110	
Ni	60	89	1	95.50	ppb	100	95.5	90	110	
Cu	63	89	1	107.99	ppb	100	108.0	90	110	
Zn	66	89	1	94.64	ppb	100	94.6	90	110	
As	75	115	1	98.25	ppb	100	98.2	90	110	
(As)	77	115	1	96.95	ppb	100	97.0	90	110	
Se	82	115	1	101.82	ppb	100	101.8	90	110	
Sr	88	115	1	105.68	ppb	100	105.7	90	110	
Mo	95	115	1	104.14	ppb	100	104.1	90	110	
Mo	98	115	1	103.82	ppb	100	103.8	90	110	
(Mo)	99	115	1	-12587.12	ppb	100	-12587.1	90	110	>+/-10%
(Cd)	106	115	1	101.34	ppb	100	101.3	90	110	
Ag	107	115	1	7.25	ppb	10	72.5	90	110	>+/-10%
(Cd)	108	115	1	103.00	ppb	100	103.0	90	110	
Cd	111	115	1	98.84	ppb	100	98.8	90	110	
Sn	118	115	1	106.61	ppb	100	106.6	90	110	
Sb	121	159	1	110.14	ppb	100	110.1	90	110	>+/-10%
Ba	137	159	1	101.59	ppb	100	101.6	90	110	
Tl	205	209	1	106.89	ppb	100	106.9	90	110	
(Pb)	206	209	1	110.60	ppb	100	110.6	90	110	>+/-10%
(Pb)	207	209	1	111.76	ppb	100	111.8	90	110	>+/-10%
Pb	208	209	1	110.04	ppb	100	110.0	90	110	>+/-10%

QC ISTD Table

Element	m/z	Tune Step	CPS	%RSD	Reference CPS	%Recovery	Lower Limit	Upper Limit	QC Flag
Sc	45	1	1047746	8.51	995521	105.2	60	125	
Y	89	1	1491281	4.05	1447937	103.0	60	125	
In	115	1	1330794	3.87	1251805	106.3	60	125	
Tb	159	1	1698251	2.53	1678487	101.2	60	125	
Bi	209	1	876139	2.72	881544	99.4	60	125	

TuneStep	TuneFile
1	nogas.u

Continuing Calibration Blank (CCB) - US EPA Method 200.8

Sample Name	**Blank**
Data File Name	**0402CCB.D**
DataPath	**C:\ICPMH\1\DATA\061614CC.B**
Acq Date Time	**2014-06-16T16:58:08-04:00**
Type	**2-CCB**
VialNumber	**1101**
Dilution	**1**
Comment	
Operator	
ISTDRefDataFileName	**014CALB.D**
SamplePassFail	**Fail**
ISTD PassFail	**Pass**

QC Analyte Table

Element	m/z	ISTD	Tune Step	Meas Value	Units	QC High	QC Flag
Be	9	45	1	-0.01	ppb	0.05	
Na	23	45	1	8.33	ppb	0.5	>MDL
Mg	24	45	1	0.87	ppb	5	
Al	27	45	1	0.39	ppb	0.55	
Ca	44	45	1	-55.83	ppb	5	
Ti	47	45	1	-0.02	ppb	0.05	
V	51	45	1	0.01	ppb	0.05	
Cr (V)	52	45	1	0.02	ppb	0.05	
Mn	55	45	1	0.14	ppb	0.5	
Fe	57	45	1	-11.06	ppb	0.5	
Co	59	89	1	-0.02	ppb	0.05	
Ni	60	89	1	-12.64	ppb	0.05	
Cu	63	89	1	0.02	ppb	0.05	
Zn	66	89	1	-5.05	ppb	0.05	
As	75	115	1	0.13	ppb	0.05	>MDL
(As)	77	115	1	-5.92	ppb	0.05	
Se	82	115	1	-0.12	ppb	0.05	
(As)	83	115	1	-15.88	ppb	0.05	
Mo	98	115	1	-0.58	ppb	0.05	
(Cd)	106	115	1	-0.17	ppb	0.05	
Ag	107	115	1	0.08	ppb	0.005	>MDL
(Cd)	108	115	1	0.08	ppb	0.05	>MDL
Cd	111	115	1	-0.02	ppb	0.05	
Sn	118	115	1	0.03	ppb	0.05	
Sb	121	159	1	0.07	ppb	0.05	>MDL
Ba	137	159	1	0.02	ppb	0.05	
Tl	205	209	1	-0.01	ppb	0.05	
(Pb)	206	209	1	0.02	ppb	0.05	
(Pb)	207	209	1	0.02	ppb	0.05	
Pb	208	209	1	0.02	ppb	0.05	

QC ISTD Table

Element	m/z	Tune Step	CPS	%RSD	Reference CPS	%Recovery	Lower Limit	Upper Limit	QC Flag
Sc	45	1	1068433	7.94	995521	107.3	60	125	
Y	89	1	1462683	11.34	1447937	101.0	60	125	
In	115	1	1280603	11.61	1251805	102.3	60	125	
Tb	159	1	1674672	10.70	1678487	99.8	60	125	
Bi	209	1	879855	10.66	881544	99.8	60	125	

TuneStep	TuneFile
1	nogas.u

Reprocessing Begun
Logged In Analyst: xp Technique: ICP Continuous

Results Data Set (original): 0610140815F
Results Library (original): C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb
Results Data Set (reprocessed):
Results Library (reprocessed):

Sequence No.: 1 Autosampler Location: 1
Sample ID: Calib Blank 1 Date Collected: 6/10/2014 8:17:54 AM
Analyst: Data Type: Reprocessed on 9/8/2014 12:56:05 PM
Logged In Analyst (Original) : xp
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	776752.5	11044.16	1.42%	1.0000	mg/L
Ag 328.068†	-34.8	40.96	117.67%	[0.00]	mg/L
Ag 338.289†	24.9	33.00	132.66%	[0.00]	mg/L
Al 308.215†	12006.6	89.70	0.75%	[0.00]	mg/L
Al 396.153†	6588.1	365.78	5.55%	[0.00]	mg/L
As 193.696†	83.8	8.79	10.49%	[0.00]	mg/L
As 188.979†	77.9	9.04	11.61%	[0.00]	mg/L
B 249.677†	2988.9	44.01	1.47%	[0.00]	mg/L
B 249.772†	2988.9	44.01	1.47%	[0.00]	mg/L
Ba 493.408†	146106.7	1798.27	1.23%	[0.00]	mg/L
Ba 233.527†	14.7	4.99	33.99%	[0.00]	mg/L
Be 313.042†	3869.6	753.00	19.46%	[0.00]	mg/L
Be 313.107†	3869.6	753.00	19.46%	[0.00]	mg/L
Ca 315.887†	412.8	3021.10	731.84%	[0.00]	mg/L
Ca 317.933†	-1540.5	615.84	39.98%	[0.00]	mg/L
Cd 226.502†	-27.9	4.12	14.76%	[0.00]	mg/L
Cd 228.802†	1.5	12.40	823.85%	[0.00]	mg/L
Co 228.616†	139.0	35.59	25.60%	[0.00]	mg/L
Co 238.892†	-73.8	27.07	36.68%	[0.00]	mg/L
Cr 205.560†	4.0	18.43	457.68%	[0.00]	mg/L
Cr 267.716†	-122.6	33.58	27.38%	[0.00]	mg/L
Cu 324.752†	-787.7	71.08	9.02%	[0.00]	mg/L
Cu 327.393†	-772.5	27.51	3.56%	[0.00]	mg/L
Fe 259.939†	17553.1	1481.31	8.44%	[0.00]	mg/L
Fe 238.204†	11187.1	865.02	7.73%	[0.00]	mg/L
K 766.490†	24371.0	9884.90	40.56%	[0.00]	mg/L
Mg 279.077†	548.2	79.88	14.57%	[0.00]	mg/L
Mg 285.213†	43909.8	3582.58	8.16%	[0.00]	mg/L
Mn 257.610†	1468.7	116.15	7.91%	[0.00]	mg/L
Mn 259.372†	1560.6	168.29	10.78%	[0.00]	mg/L
Mo 203.845†	-8.1	7.26	90.01%	[0.00]	mg/L
Mo 202.031†	19.5	40.30	206.56%	[0.00]	mg/L
Na 588.995†	457179.1	30882.15	6.75%	[0.00]	mg/L
Na 589.592†	306278.1	17831.20	5.82%	[0.00]	mg/L
Ni 231.604†	59.4	28.04	47.20%	[0.00]	mg/L
Ni 221.648†	-57.0	12.15	21.33%	[0.00]	mg/L
Pb 220.353†	-39.3	18.03	45.87%	[0.00]	mg/L
Pb 217.000†	-7.5	19.09	253.13%	[0.00]	mg/L
Sb 206.836†	-35.8	14.99	41.84%	[0.00]	mg/L
Sb 217.582†	29.0	4.90	16.89%	[0.00]	mg/L
Se 196.026†	34.3	14.38	41.92%	[0.00]	mg/L
Se 203.985†	-30.0	13.81	46.01%	[0.00]	mg/L
Si 251.611†	3756.3	159.39	4.24%	[0.00]	mg/L
Si 212.412†	1225.3	15.30	1.25%	[0.00]	mg/L
Sn 189.927†	-6.7	11.55	171.59%	[0.00]	mg/L
Sn 235.485†	20.2	108.54	538.13%	[0.00]	mg/L
Sr 421.552†	122935.0	6919.41	5.63%	[0.00]	mg/L
Sr 407.771†	163031.2	18986.45	11.65%	[0.00]	mg/L
Tl 190.801†	1.1	8.74	767.00%	[0.00]	mg/L
Tl 276.787†	115.9	19.15	16.53%	[0.00]	mg/L
V 292.402†	76.9	33.26	43.26%	[0.00]	mg/L

V 290.880†	697.0	61.87	8.88%	[0.00] mg/L
Zn 213.857†	1340.6	308.53	23.01%	[0.00] mg/L
Zn 206.200†	194.6	95.58	49.13%	[0.00] mg/L
P 213.617†	841.5	9.49	1.13%	[0.00] mg/L
P 214.914†	710.4	9.59	1.35%	[0.00] mg/L
Ti 334.940†	359.6	49.61	13.80%	[0.00] mg/L
Ti 336.121†	-613.4	42.61	6.95%	[0.00] mg/L

Method Loaded
Method Name: DW 200.7 9-2013 Method Last Saved: 8/8/2014 2:10:41 PM
IEC File: MSF File: MSF 022113.msf
Method Description: DW EPA 200.7 022013

Sequence No.: 2 Autosampler Location: 2
Sample ID: Cal Standard 1 Date Collected: 6/10/2014 8:19:58 AM
Analyst: Data Type: Reprocessed on 9/8/2014 12:56:07 PM
Logged In Analyst (Original) : xp
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Mean Data: Cal Standard 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	774550.9	5752.14	0.74%	0.9972	mg/L
Al 308.215†	-341.6	202.95	59.42%	[0.01]	mg/L
Standard intensity and concentration values are not in the same order.					
Al 396.153†	-771.6	223.90	29.02%	[0.01]	mg/L
Standard intensity and concentration values are not in the same order.					
As 193.696†	10.3	9.16	88.77%	[0.01]	mg/L
As 188.979†	1.1	10.80	939.73%	[0.01]	mg/L
B 249.677†	167.9	52.03	30.98%	[0.01]	mg/L
B 249.772†	167.9	52.03	30.98%	[0.01]	mg/L
Ba 493.408†	81784.2	607.04	0.74%	[0.01]	mg/L
Ba 233.527†	671.8	15.91	2.37%	[0.01]	mg/L
Be 313.042†	52419.4	684.00	1.30%	[0.01]	mg/L
Be 313.107†	52419.4	684.00	1.30%	[0.01]	mg/L
Ca 315.887†	-3071.8	84.97	2.77%	[0.01]	mg/L
Standard intensity and concentration values are not in the same order.					
Ca 317.933†	-3007.5	162.23	5.39%	[0.01]	mg/L
Standard intensity and concentration values are not in the same order.					
Cd 226.502†	944.5	15.09	1.60%	[0.01]	mg/L
Cd 228.802†	529.5	4.36	0.82%	[0.01]	mg/L
Co 228.616†	583.6	56.05	9.60%	[0.01]	mg/L
Co 238.892†	535.7	23.52	4.39%	[0.01]	mg/L
Cr 205.560†	309.0	16.61	5.38%	[0.01]	mg/L
Cr 267.716†	942.7	10.34	1.10%	[0.01]	mg/L
Cu 324.752†	15759.8	238.39	1.51%	[0.01]	mg/L
Cu 327.393†	11172.4	228.03	2.04%	[0.01]	mg/L
Fe 259.939†	-15436.5	10.68	0.07%	[0.01]	mg/L
Standard intensity and concentration values are not in the same order.					
Fe 238.204†	-9847.0	14.46	0.15%	[0.01]	mg/L
Standard intensity and concentration values are not in the same order.					
Mg 279.077†	-296.6	16.70	5.63%	[0.01]	mg/L
Standard intensity and concentration values are not in the same order.					
Mg 285.213†	-8160.3	228.19	2.80%	[0.01]	mg/L
Standard intensity and concentration values are not in the same order.					
Mn 257.610†	3[illegible].0	62.07	1.57%	[0.01]	mg/L
Mn 259.372†	4522.7	138.93	3.07%	[0.01]	mg/L
Mo 203.845†	89.0	12.51	14.06%	[0.01]	mg/L
Mo 202.031†	152.7	12.46	8.16%	[0.01]	mg/L
Ni 231.604†	329.4	32.93	9.99%	[0.01]	mg/L
Ni 221.648†	304.0	14.14	4.65%	[0.01]	mg/L
Pb 220.353†	84.7	36.52	43.14%	[0.01]	mg/L
Pb 217.000†	58.7	13.43	22.89%	[0.01]	mg/L
Sb 206.836†	33.0	26.23	79.49%	[0.01]	mg/L
Sb 217.582†	12.6	5.01	39.85%	[0.01]	mg/L
Sn 189.927†	35.6	5.65	15.89%	[0.01]	mg/L
Sn 235.485†	316.5	60.73	19.19%	[0.01]	mg/L
Sr 421.552†	130287.2	598.52	0.46%	[0.01]	mg/L
Sr 407.771†	352409.2	1833.66	0.52%	[0.01]	mg/L
Tl 190.801†	19.1	3.49	18.23%	[0.01]	mg/L

Tl 276.787†	79.2	81.39	102.72%	[0.01]	mg/L
V 292.402†	1319.2	18.48	1.40%	[0.01]	mg/L
V 290.880†	800.9	35.85	4.48%	[0.01]	mg/L
Zn 213.857†	4606.2	74.42	1.62%	[0.01]	mg/L
Zn 206.200†	1735.3	6.95	0.40%	[0.01]	mg/L
P 213.617†	-53.8	16.80	31.20%	[0.01]	mg/L
Standard intensity and concentration values are not in the same order.					
P 214.914†	-45.9	22.82	49.67%	[0.01]	mg/L
Standard intensity and concentration values are not in the same order.					
Ti 334.940†	5672.7	137.38	2.42%	[0.01]	mg/L
Ti 336.121†	5086.8	58.94	1.16%	[0.01]	mg/L

Method Loaded
Method Name: DW 200.7 9-2013 **Method Last Saved: 8/8/2014 2:10:41 PM**
IEC File: **MSF File: MSF 022113.msf**
Method Description: DW EPA 200.7 022013

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: Cal Standard 2 **Date Collected: 6/10/2014 8:22:02 AM**
Analyst: **Data Type: Reprocessed on 9/8/2014 12:56:09 PM**
Logged In Analyst (Original) : xp
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: Cal Standard 2

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
Y 371.029	782983.0	8870.91	1.13%	1.008	mg/L
Ag 328.068†	866.0	34.42	3.97%	[0.005]	mg/L
Ag 338.289†	251.1	18.80	7.49%	[0.005]	mg/L
Al 308.215†	385.3	237.52	61.64%	[0.05]	mg/L
Standard intensity and concentration values are not in the same order.					
Al 396.153†	7424.7	353.88	4.77%	[0.05]	mg/L
Standard intensity and concentration values are not in the same order.					
As 193.696†	73.2	16.78	22.91%	[0.05]	mg/L
As 188.979†	67.9	12.00	17.68%	[0.05]	mg/L
B 249.677†	2254.6	115.14	5.11%	[0.05]	mg/L
B 249.772†	2254.6	115.14	5.11%	[0.05]	mg/L
Ba 493.408†	393996.2	10388.38	2.64%	[0.05]	mg/L
Ba 233.527†	3335.5	82.49	2.47%	[0.05]	mg/L
Be 313.042†	259362.7	5532.76	2.13%	[0.05]	mg/L
Be 313.107†	259362.7	5532.76	2.13%	[0.05]	mg/L
Ca 315.887†	-460.9	118.50	25.71%	[0.05]	mg/L
Standard intensity and concentration values are not in the same order.					
Ca 317.933†	2139.8	237.16	11.08%	[0.05]	mg/L
Standard intensity and concentration values are not in the same order.					
Cd 226.502†	4593.5	127.41	2.77%	[0.05]	mg/L
Cd 228.802†	2528.1	52.79	2.09%	[0.05]	mg/L
Co 228.616†	2837.0	69.32	2.44%	[0.05]	mg/L
Co 238.892†	2635.0	55.11	2.09%	[0.05]	mg/L
Cr 205.560†	1435.0	50.75	3.54%	[0.05]	mg/L
Cr 267.716†	4715.1	74.80	1.59%	[0.05]	mg/L
Cu 324.752†	20084.7	396.30	1.97%	[0.05]	mg/L
Cu 327.393†	14160.2	276.69	1.95%	[0.05]	mg/L
Fe 259.939†	-10139.2	179.81	1.77%	[0.05]	mg/L
Standard intensity and concentration values are not in the same order.					
Fe 238.204†	-6553.1	90.85	1.39%	[0.05]	mg/L
Standard intensity and concentration values are not in the same order.					
Mg 279.077†	440.4	43.94	9.98%	[0.05]	mg/L
Standard intensity and concentration values are not in the same order.					
Mg 285.213†	15401.0	933.46	6.06%	[0.05]	mg/L
Standard intensity and concentration values are not in the same order.					
Mn 257.610†	22396.4	530.59	2.37%	[0.05]	mg/L
Mn 259.372†	26495.5	563.23	2.13%	[0.05]	mg/L
Mo 203.845†	433.6	25.25	5.82%	[0.05]	mg/L
Mo 202.031†	885.5	8.40	0.95%	[0.05]	mg/L
Ni 231.604†	1637.6	61.62	3.76%	[0.05]	mg/L
Ni 221.648†	1433.4	18.77	1.31%	[0.05]	mg/L
Pb 220.353†	381.1	29.29	7.69%	[0.05]	mg/L
Pb 217.000†	122.4	20.02	16.36%	[0.05]	mg/L
Sb 206.836†	170.0	23.26	13.68%	[0.05]	mg/L

Sb 217.582†	189.9	19.33	10.18%	[0.05]	mg/L
Se 196.026†	50.1	7.78	15.53%	[0.05]	mg/L
Sn 189.927†	269.6	16.01	5.94%	[0.05]	mg/L
Sn 235.485†	545.6	57.94	10.62%	[0.05]	mg/L
Sr 421.552†	659872.9	16996.01	2.58%	[0.05]	mg/L
Sr 407.771†	1791527.1	42872.38	2.39%	[0.05]	mg/L
Tl 190.801†	75.6	12.91	17.07%	[0.05]	mg/L
Tl 276.787†	132.9	15.18	11.42%	[0.05]	mg/L
V 292.402†	6560.5	132.69	2.02%	[0.05]	mg/L
V 290.880†	4553.1	174.11	3.82%	[0.05]	mg/L
Zn 213.857†	7257.3	156.14	2.15%	[0.05]	mg/L
Zn 206.200†	2767.6	72.74	2.63%	[0.05]	mg/L
P 213.617†	26.8	19.16	71.35%	[0.05]	mg/L
Standard intensity and concentration values are not in the same order.					
P 214.914†	19.9	12.46	62.64%	[0.05]	mg/L
Standard intensity and concentration values are not in the same order.					
Ti 334.940†	26928.1	648.68	2.41%	[0.05]	mg/L
Ti 336.121†	25650.9	522.65	2.04%	[0.05]	mg/L

Method Loaded
Method Name: DW 200.7 9-2013 **Method Last Saved: 8/8/2014 2:10:41 PM**
IEC File: **MSF File: MSF 022113.msf**
Method Description: DW EPA 200.7 022013

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: Cal Standard 3 **Date Collected: 6/10/2014 8:24:08 AM**
Analyst: **Data Type: Reprocessed on 9/8/2014 12:56:10 PM**
Logged In Analyst (Original) : xp
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: Cal Standard 3

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	779430.2	7450.49	0.96%	1.003	mg/L
Ag 328.068†	1656.0	100.60	6.07%	[0.010]	mg/L
Ag 338.289†	495.4	29.87	6.03%	[0.010]	mg/L
Al 308.215†	1288.2	291.70	22.64%	[0.100]	mg/L
Standard intensity and concentration values are not in the same order.					
Al 396.153†	17294.7	375.87	2.17%	[0.100]	mg/L
Standard intensity and concentration values are not in the same order.					
As 193.696†	169.2	23.40	13.83%	[0.100]	mg/L
As 188.979†	151.0	7.57	5.02%	[0.100]	mg/L
B 249.677†	5232.8	303.23	5.79%	[0.100]	mg/L
B 249.772†	5232.8	303.23	5.79%	[0.100]	mg/L
Ba 493.408†	798883.1	516.35	0.06%	[0.100]	mg/L
Ba 233.527†	6786.8	250.22	3.69%	[0.100]	mg/L
Be 313.042†	529469.8	1041.19	0.20%	[0.100]	mg/L
Be 313.107†	529469.8	1041.19	0.20%	[0.100]	mg/L
Ca 315.887†	3054.2	64.44	2.11%	[0.100]	mg/L
Standard intensity and concentration values are not in the same order.					
Ca 317.933†	8966.1	501.10	5.59%	[0.100]	mg/L
Standard intensity and concentration values are not in the same order.					
Cd 226.502†	9370.8	319.53	3.41%	[0.100]	mg/L
Cd 228.802†	5157.9	191.95	3.72%	[0.100]	mg/L
Co 228.616†	5732.7	213.94	3.73%	[0.100]	mg/L
Co 238.8[illegible]	5379.0	175.73	3.27%	[0.100]	mg/L
Cr 205.560†	2918.4	84.70	2.90%	[0.100]	mg/L
Cr 267.716†	9677.1	335.87	3.47%	[0.100]	mg/L
Cu 324.752†	24890.9	947.13	3.81%	[0.100]	mg/L
Cu 327.393†	17496.4	610.88	3.49%	[0.100]	mg/L
Fe 259.939†	-3356.5	507.18	15.11%	[0.100]	mg/L
Standard intensity and concentration values are not in the same order.					
Fe 238.204†	-2088.0	362.32	17.35%	[0.100]	mg/L
Standard intensity and concentration values are not in the same order.					
Mg 279.077†	1425.5	87.44	6.13%	[0.100]	mg/L
Standard intensity and concentration values are not in the same order.					
Mg 285.213†	45988.2	2577.96	5.61%	[0.100]	mg/L
Standard intensity and concentration values are not in the same order.					
Mn 257.610†	46086.8	69.92	0.15%	[0.100]	mg/L
Mn 259.372†	54806.9	161.36	0.29%	[0.100]	mg/L

Mo 203.845†	874.0	26.17	2.99%	[0.100] mg/L
Mo 202.031†	1797.0	65.19	3.63%	[0.100] mg/L
Ni 231.604†	3355.8	116.26	3.46%	[0.100] mg/L
Ni 221.648†	2942.4	137.31	4.67%	[0.100] mg/L
Pb 220.353†	701.2	52.73	7.52%	[0.100] mg/L
Pb 217.000†	226.5	22.69	10.02%	[0.100] mg/L
Sb 206.836†	331.6	3.72	1.12%	[0.100] mg/L
Sb 217.582†	430.1	41.47	9.64%	[0.100] mg/L
Se 196.026†	93.7	8.93	9.54%	[0.100] mg/L
Se 203.985†	84.4	20.50	24.30%	[0.100] mg/L
Si 251.611†	2389.3	194.32	8.13%	[0.100] mg/L
Si 212.412†	610.4	79.60	13.04%	[0.100] mg/L
Sn 189.927†	564.7	15.26	2.70%	[0.100] mg/L
Sn 235.485†	1154.7	150.50	13.03%	[0.100] mg/L
Sr 421.552†	1344784.6	3543.22	0.26%	[0.100] mg/L
Sr 407.771†	3668690.5	92901.77	2.53%	[0.100] mg/L
Tl 190.801†	156.1	2.24	1.43%	[0.100] mg/L
Tl 276.787†	274.7	19.69	7.17%	[0.100] mg/L
V 292.402†	13276.5	494.23	3.72%	[0.100] mg/L
V 290.880†	9420.6	352.90	3.75%	[0.100] mg/L
Zn 213.857†	10505.1	383.75	3.65%	[0.100] mg/L
Zn 206.200†	3956.6	167.29	4.23%	[0.100] mg/L
P 213.617†	114.0	9.47	8.31%	[0.100] mg/L
Standard intensity and concentration values are not in the same order.				
P 214.914†	93.2	7.30	7.83%	[0.100] mg/L
Standard intensity and concentration values are not in the same order.				
Ti 334.940†	54143.4	283.55	0.52%	[0.100] mg/L
Ti 336.121†	52204.6	240.90	0.46%	[0.100] mg/L

Method Loaded
Method Name: DW 200.7 9-2013 **Method Last Saved: 8/8/2014 2:10:41 PM**
IEC File: **MSF File: MSF 022113.msf**
Method Description: DW EPA 200.7 022013

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: Cal Standard 4 **Date Collected: 6/10/2014 8:26:20 AM**
Analyst: **Data Type: Reprocessed on 9/8/2014 12:56:12 PM**
Logged In Analyst (Original) : xp
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: Cal Standard 4

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
Y 371.029	789461.4	11980.89	1.52%	1.016	mg/L
Ag 328.068†	8110.5	55.85	0.69%	[0.050]	mg/L
Ag 338.289†	2686.1	39.83	1.48%	[0.050]	mg/L
Al 308.215†	8340.8	225.94	2.71%	[0.500]	mg/L
Standard intensity and concentration values are not in the same order.					
Al 396.153†	93636.0	1150.18	1.23%	[0.500]	mg/L
Standard intensity and concentration values are not in the same order.					
As 193.696†	880.4	7.34	0.83%	[0.500]	mg/L
As 188.979†	804.6	8.92	1.11%	[0.500]	mg/L
B 249.677†	29532.3	209.57	0.71%	[0.500]	mg/L
B 249.772†	29532.3	209.57	0.71%	[0.500]	mg/L
Ba 493.408†	3855282.8	38223.89	0.99%	[0.500]	mg/L
Ba 233.527†	33726.3	175.05	0.52%	[0.500]	mg/L
Be 313.042†	2576387.6	21724.75	0.84%	[0.500]	mg/L
Be 313.107†	2576387.6	21724.75	0.84%	[0.500]	mg/L
Ca 315.887†	27660.2	219.08	0.79%	[0.500]	mg/L
Standard intensity and concentration values are not in the same order.					
Ca 317.933†	56749.4	476.17	0.84%	[0.500]	mg/L
Standard intensity and concentration values are not in the same order.					
Cd 226.502†	46077.6	178.00	0.39%	[0.500]	mg/L
Cd 228.802†	25181.5	109.82	0.44%	[0.500]	mg/L
Co 228.616†	28127.8	148.95	0.53%	[0.500]	mg/L
Co 238.892†	26731.8	87.23	0.33%	[0.500]	mg/L
Cr 205.560†	14521.6	80.51	0.55%	[0.500]	mg/L
Cr 267.716†	46196.3	400.24	0.87%	[0.500]	mg/L
Cu 324.752†	114493.9	1075.30	0.94%	[0.500]	mg/L
Cu 327.393†	80014.4	814.48	1.02%	[0.500]	mg/L

Fe 259.939†	49424.1	519.27	1.05%	[0.500]	mg/L
Standard intensity and concentration values are not in the same order.					
Fe 238.204†	31308.7	256.97	0.82%	[0.500]	mg/L
Standard intensity and concentration values are not in the same order.					
K 766.490†	170473.0	3130.91	1.84%	[0.500]	mg/L
Mg 279.077†	8701.8	97.94	1.13%	[0.500]	mg/L
Standard intensity and concentration values are not in the same order.					
Mg 285.213†	277265.6	2869.39	1.03%	[0.500]	mg/L
Standard intensity and concentration values are not in the same order.					
Mn 257.610†	227529.5	1586.29	0.70%	[0.500]	mg/L
Mn 259.372†	270844.4	2177.01	0.80%	[0.500]	mg/L
Mo 203.845†	4402.8	27.88	0.63%	[0.500]	mg/L
Mo 202.031†	9260.6	41.16	0.44%	[0.500]	mg/L
Na 588.995†	518290.9	5478.83	1.06%	[0.500]	mg/L
Na 589.592†	291047.8	3386.29	1.16%	[0.500]	mg/L
Ni 231.604†	16700.5	76.70	0.46%	[0.500]	mg/L
Ni 221.648†	14515.7	71.69	0.49%	[0.500]	mg/L
Pb 220.353†	3580.6	18.68	0.52%	[0.500]	mg/L
Pb 217.000†	949.2	41.89	4.41%	[0.500]	mg/L
Sb 206.836†	1658.7	41.12	2.48%	[0.500]	mg/L
Sb 217.582†	2165.0	9.14	0.42%	[0.500]	mg/L
Se 196.026†	558.7	19.89	3.56%	[0.500]	mg/L
Se 203.985†	313.4	4.77	1.52%	[0.500]	mg/L
Si 251.611†	14042.6	63.14	0.45%	[0.500]	mg/L
Si 212.412†	3402.3	22.80	0.67%	[0.500]	mg/L
Sn 189.927†	2865.3	38.97	1.36%	[0.500]	mg/L
Sn 235.485†	5165.6	93.99	1.82%	[0.500]	mg/L
Sr 421.552†	6545500.3	236668.53	3.62%	[0.500]	mg/L
Sr 407.771†	17618665.7	624983.20	3.55%	[0.500]	mg/L
Tl 190.801†	783.7	4.86	0.62%	[0.500]	mg/L
Tl 276.787†	1374.1	35.24	2.56%	[0.500]	mg/L
V 292.402†	63586.2	569.73	0.90%	[0.500]	mg/L
V 290.880†	45326.4	378.90	0.84%	[0.500]	mg/L
Zn 213.857†	50138.8	128.68	0.26%	[0.500]	mg/L
Zn 206.200†	19561.0	147.00	0.75%	[0.500]	mg/L
P 213.617†	975.0	35.35	3.63%	[0.500]	mg/L
Standard intensity and concentration values are not in the same order.					
P 214.914†	859.9	43.09	5.01%	[0.500]	mg/L
Standard intensity and concentration values are not in the same order.					
Ti 334.940†	262676.4	2147.52	0.82%	[0.500]	mg/L
Ti 336.121†	255281.9	2118.77	0.83%	[0.500]	mg/L

Method Loaded
Method Name: DW 200.7 9-2013 **Method Last Saved: 8/8/2014 2:10:41 PM**
IEC File: **MSF File: MSF 022113.msf**
Method Description: DW EPA 200.7 022013

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: Cal Standard 5 **Date Collected: 6/10/2014 8:28:35 AM**
Analyst: **Data Type: Reprocessed on 9/8/2014 12:56:14 PM**
Logged In Analyst (Original) : xp
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: Cal Standard 5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	786575.2	7234.41	0.92%	1.013	mg/L
Ag 328.068†	31137.4	351.59	1.13%	[0.200]	mg/L
Ag 338.289†	10486.1	61.19	0.58%	[0.200]	mg/L
Al 308.215†	33489.5	666.94	1.99%	[2.00]	mg/L
Standard intensity and concentration values are not in the same order.					
Al 396.153†	387428.6	1977.96	0.51%	[2.00]	mg/L
Standard intensity and concentration values are not in the same order.					
As 193.696†	3557.3	77.19	2.17%	[2.00]	mg/L
As 188.979†	3192.7	89.90	2.82%	[2.00]	mg/L
B 249.677†	119100.3	467.34	0.39%	[2.00]	mg/L
B 249.772†	119100.3	467.34	0.39%	[2.00]	mg/L
Ba 493.408†	15165646.8	105866.70	0.70%	[2.00]	mg/L
Ba 233.527†	131281.8	153.27	0.12%	[2.00]	mg/L
Be 313.042†	10453838.4	86064.73	0.82%	[2.00]	mg/L

Be 313.107†	10453838.4	86064.73	0.82%	[2.00]	mg/L
Ca 315.887†	122222.3	130.76	0.11%	[2.00]	mg/L
Standard intensity and concentration values are not in the same order.					
Ca 317.933†	240564.7	196.89	0.08%	[2.00]	mg/L
Standard intensity and concentration values are not in the same order.					
Cd 226.502†	180010.3	178.65	0.10%	[2.00]	mg/L
Cd 228.802†	97036.6	1425.01	1.47%	[2.00]	mg/L
Co 228.616†	110510.5	226.07	0.20%	[2.00]	mg/L
Co 238.892†	103119.1	118.03	0.11%	[2.00]	mg/L
Cr 205.560†	55516.4	949.42	1.71%	[2.00]	mg/L
Cr 267.716†	184229.1	307.72	0.17%	[2.00]	mg/L
Cu 324.752†	442397.5	1450.62	0.33%	[2.00]	mg/L
Cu 327.393†	306803.3	1192.36	0.39%	[2.00]	mg/L
Fe 259.939†	251658.4	483.50	0.19%	[2.00]	mg/L
Standard intensity and concentration values are not in the same order.					
Fe 238.204†	160491.9	238.28	0.15%	[2.00]	mg/L
Standard intensity and concentration values are not in the same order.					
K 766.490†	774176.7	4578.33	0.59%	[2.00]	mg/L
Mg 279.077†	35158.3	520.34	1.48%	[2.00]	mg/L
Standard intensity and concentration values are not in the same order.					
Mg 285.213†	1172917.3	3473.96	0.30%	[2.00]	mg/L
Standard intensity and concentration values are not in the same order.					
Mn 257.610†	910852.4	872.33	0.10%	[2.00]	mg/L
Mn 259.372†	1087358.6	1510.00	0.14%	[2.00]	mg/L
Mo 203.845†	16781.0	332.24	1.98%	[2.00]	mg/L
Mo 202.031†	35150.1	531.14	1.51%	[2.00]	mg/L
Na 588.995†	2517881.2	6242.25	0.25%	[2.00]	mg/L
Na 589.592†	1420919.2	4009.74	0.28%	[2.00]	mg/L
Ni 231.604†	63910.9	1092.94	1.71%	[2.00]	mg/L
Ni 221.648†	55594.7	925.18	1.66%	[2.00]	mg/L
Pb 220.353†	13715.6	225.57	1.64%	[2.00]	mg/L
Pb 217.000†	3711.4	99.11	2.67%	[2.00]	mg/L
Sb 206.836†	6392.6	100.45	1.57%	[2.00]	mg/L
Sb 217.582†	8314.2	167.87	2.02%	[2.00]	mg/L
Se 196.026†	2211.3	74.18	3.35%	[2.00]	mg/L
Se 203.985†	1190.8	5.53	0.46%	[2.00]	mg/L
Si 251.611†	55348.8	845.94	1.53%	[2.00]	mg/L
Si 212.412†	13166.7	259.22	1.97%	[2.00]	mg/L
Sn 189.927†	11137.3	208.21	1.87%	[2.00]	mg/L
Sn 235.485†	18833.6	258.92	1.37%	[2.00]	mg/L
Sr 421.552†	26128309.0	227290.44	0.87%	[2.00]	mg/L
Sr 407.771†	Saturated2				
Tl 190.801†	2952.7	70.04	2.37%	[2.00]	mg/L
Tl 276.787†	5241.1	56.22	1.07%	[2.00]	mg/L
V 292.402†	254561.3	623.71	0.25%	[2.00]	mg/L
V 290.880†	182080.7	379.56	0.21%	[2.00]	mg/L
Zn 213.857†	194187.8	301.13	0.16%	[2.00]	mg/L
Zn 206.200†	75096.6	1226.58	1.63%	[2.00]	mg/L
P 213.617†	4011.4	113.94	2.84%	[2.00]	mg/L
Standard intensity and concentration values are not in the same order.					
P 214.914†	3502.0	138.92	3.97%	[2.00]	mg/L
Standard intensity and concentration values are not in the same order.					
Ti 334.940†	1045062.5	1837.80	0.18%	[2.00]	mg/L
Ti 336.121†	1014883.1	1621.51	0.16%	[2.00]	mg/L

Method Loaded
Method Name: DW 200.7 9-2013 **Method Last Saved: 8/8/2014 2:10:41 PM**
IEC File: **MSF File: MSF 022113.msf**
Method Description: DW EPA 200.7 022013

Sequence No.: 7 **Autosampler Location: 7**
Sample ID: Cal Standard 6 **Date Collected: 6/10/2014 8:30:56 AM**
Analyst: **Data Type: Reprocessed on 9/8/2014 12:56:15 PM**
Logged In Analyst (Original) : xp
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: Cal Standard 6

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
Y 371.029	776027.4	9416.14	1.21%	0.9991	mg/L

Ag 328.068†	78555.1	802.09	1.02%	[0.500]	mg/L
Ag 338.289†	26940.6	85.55	0.32%	[0.500]	mg/L
Al 308.215†	87302.3	874.99	1.00%	[5.00]	mg/L
Standard intensity and concentration values are not in the same order.					
Al 396.153†	996773.9	500.98	0.05%	[5.00]	mg/L
Standard intensity and concentration values are not in the same order.					
As 193.696†	8910.7	70.42	0.79%	[5.00]	mg/L
As 188.979†	7995.2	68.89	0.86%	[5.00]	mg/L
B 249.677†	306222.0	1574.14	0.51%	[5.00]	mg/L
B 249.772†	306222.0	1574.14	0.51%	[5.00]	mg/L
Ba 493.408†	Saturated2				
Ba 233.527†	332548.9	1237.70	0.37%	[5.00]	mg/L
Be 313.042†	26261347.2	255652.08	0.97%	[5.00]	mg/L
Be 313.107†	26261347.2	255652.08	0.97%	[5.00]	mg/L
Ca 315.887†	316095.1	1425.09	0.45%	[5.00]	mg/L
Standard intensity and concentration values are not in the same order.					
Ca 317.933†	615366.6	2217.27	0.36%	[5.00]	mg/L
Standard intensity and concentration values are not in the same order.					
Cd 226.502†	458494.4	1502.85	0.33%	[5.00]	mg/L
Cd 228.802†	250463.6	327.09	0.13%	[5.00]	mg/L
Co 228.616†	278880.3	713.87	0.26%	[5.00]	mg/L
Co 238.892†	260283.0	842.30	0.32%	[5.00]	mg/L
Cr 205.560†	142156.6	455.53	0.32%	[5.00]	mg/L
Cr 267.716†	466416.7	1477.45	0.32%	[5.00]	mg/L
Cu 324.752†	1055433.2	3041.64	0.29%	[5.00]	mg/L
Cu 327.393†	728187.0	2040.31	0.28%	[5.00]	mg/L
Fe 259.939†	656579.2	2363.30	0.36%	[5.00]	mg/L
Standard intensity and concentration values are not in the same order.					
Fe 238.204†	417753.6	1511.96	0.36%	[5.00]	mg/L
Standard intensity and concentration values are not in the same order.					
K 766.490†	2180227.0	2862.14	0.13%	[5.00]	mg/L
Mg 279.077†	88030.4	968.09	1.10%	[5.00]	mg/L
Standard intensity and concentration values are not in the same order.					
Mg 285.213†	3040095.8	5931.80	0.20%	[5.00]	mg/L
Standard intensity and concentration values are not in the same order.					
Mn 257.610†	2298413.6	6329.39	0.28%	[5.00]	mg/L
Mn 259.372†	2739379.0	8539.94	0.31%	[5.00]	mg/L
Mo 203.845†	42562.0	267.87	0.63%	[5.00]	mg/L
Mo 202.031†	90637.3	432.64	0.48%	[5.00]	mg/L
Na 588.995†	7234213.7	84195.67	1.16%	[5.00]	mg/L
Na 589.592†	4191396.3	49324.51	1.18%	[5.00]	mg/L
Ni 231.604†	162629.2	506.63	0.31%	[5.00]	mg/L
Ni 221.648†	139789.3	508.63	0.36%	[5.00]	mg/L
Pb 220.353†	34585.7	360.65	1.04%	[5.00]	mg/L
Pb 217.000†	9324.1	146.27	1.57%	[5.00]	mg/L
Sb 206.836†	16320.9	166.84	1.02%	[5.00]	mg/L
Sb 217.582†	21343.5	100.66	0.47%	[5.00]	mg/L
Se 196.026†	5603.6	41.94	0.75%	[5.00]	mg/L
Se 203.985†	3040.4	30.07	0.99%	[5.00]	mg/L
Si 251.611†	139835.9	1104.13	0.79%	[5.00]	mg/L
Si 212.412†	33543.9	322.99	0.96%	[5.00]	mg/L
Sn 189.927†	28313.2	301.06	1.06%	[5.00]	mg/L
Sn 235.485†	49164.9	409.55	0.83%	[5.00]	mg/L
Sr 421.552†	Saturated2				
Sr 407.771†	Saturated2				
Tl 190.801†	7440.8	80.51	1.08%	[5.00]	mg/L
Tl 276.787†	13602.3	122.71	0.90%	[5.00]	mg/L
V 292.402†	648198.7	2007.87	0.31%	[5.00]	mg/L
V 290.880†	465261.4	1388.74	0.30%	[5.00]	mg/L
Zn 213.857†	484233.6	1115.95	0.23%	[5.00]	mg/L
Zn 206.200†	190254.9	940.76	0.49%	[5.00]	mg/L
P 213.617†	10458.5	105.62	1.01%	[5.00]	mg/L
Standard intensity and concentration values are not in the same order.					
P 214.914†	9117.3	68.45	0.75%	[5.00]	mg/L
Standard intensity and concentration values are not in the same order.					
Ti 334.940†	2691373.9	8056.44	0.30%	[5.00]	mg/L
Ti 336.121†	2614356.5	8522.57	0.33%	[5.00]	mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	5	Lin, Calc Int	62.0	156800	0.00000	0.999986	
Ag 338.289	5	Lin, Calc Int	-51.4	53810	0.00000	0.999943	

Al 308.215	6	Lin, Calc Int	-493.0	17480	0.00000	0.999893
Al 396.153	6	Lin, Calc Int	-3696.8	199400	0.00000	0.999944
As 193.696	6	Lin, Calc Int	-8.9	1784	0.00000	0.999999
As 188.979	6	Lin, Calc Int	-6.7	1600	0.00000	0.999997
B 249.677	6	Lin, Calc Int	-935.1	61230	0.00000	0.999949
B 249.772	6	Lin, Calc Int	-935.1	61230	0.00000	0.999949
Ba 493.408	5	Lin, Calc Int	23575.6	7577000	0.00000	0.999991
Ba 233.527	6	Lin, Calc Int	-53.9	66410	0.00000	0.999984
Be 313.042	6	Lin, Calc Int	-13328.2	5251000	0.00000	0.999997
Be 313.107	6	Lin, Calc Int	-13328.2	5251000	0.00000	0.999997
Ca 315.887	6	Lin, Calc Int	-3181.7	63680	0.00000	0.999904
Ca 317.933	6	Lin, Calc Int	-3656.3	123500	0.00000	0.999960
Cd 226.502	6	Lin, Calc Int	-237.1	91530	0.00000	0.999972
Cd 228.802	6	Lin, Calc Int	-237.6	49940	0.00000	0.999920
Co 228.616	6	Lin, Calc Int	-12.7	55710	0.00000	0.999992
Co 238.892	6	Lin, Calc Int	70.7	51980	0.00000	0.999988
Cr 205.560	6	Lin, Calc Int	-52.9	28360	0.00000	0.999950
Cr 267.716	6	Lin, Calc Int	-220.4	93170	0.00000	0.999987
Cu 324.752	6	Lin, Calc Int	8832.6	210300	0.00000	0.999827
Cu 327.393	6	Lin, Calc Int	6604.3	145100	0.00000	0.999792
Fe 259.939	6	Lin, Calc Int	-13731.3	133800	0.00000	0.999683
Fe 238.204	6	Lin, Calc Int	-8741.0	85150	0.00000	0.999683
K 766.490	3	Lin Thru 0	0.0	428500	0.00000	0.999052
Mg 279.077	6	Lin, Calc Int	-269.4	17670	0.00000	0.999986
Mg 285.213	6	Lin, Calc Int	-17462.4	609100	0.00000	0.999913
Mn 257.610	6	Lin, Calc Int	-1436.1	459400	0.00000	0.999994
Mn 259.372	6	Lin, Calc Int	-1703.5	547700	0.00000	0.999996
Mo 203.845	6	Lin, Calc Int	9.0	8496	0.00000	0.999975
Mo 202.031	6	Lin, Calc Int	-84.0	18080	0.00000	0.999921
Na 588.995	3	Lin Thru 0	0.0	1418000	0.00000	0.998656
Na 589.592	3	Lin Thru 0	0.0	818600	0.00000	0.998208
Ni 231.604	6	Lin, Calc Int	-9.5	32460	0.00000	0.999969
Ni 221.648	6	Lin, Calc Int	103.2	27920	0.00000	0.999989
Pb 220.353	6	Lin, Calc Int	21.8	6906	0.00000	0.999986
Pb 217.000	6	Lin, Calc Int	22.7	1858	0.00000	0.999986
Sb 206.836	6	Lin, Calc Int	-5.9	3257	0.00000	0.999962
Sb 217.582	6	Lin, Calc Int	-26.0	4261	0.00000	0.999944
Se 196.026	5	Lin, Calc Int	-9.9	1121	0.00000	0.999985
Se 203.985	4	Lin, Calc Int	6.3	605.0	0.00000	0.999915
Si 251.611	4	Lin, Calc Int	-207.2	27980	0.00000	0.999988
Si 212.412	4	Lin, Calc Int	-45.5	6704	0.00000	0.999966
Sn 189.927	6	Lin, Calc Int	-19.2	5655	0.00000	0.999977
Sn 235.485	6	Lin, Calc Int	51.6	9768	0.00000	0.999814
Sr 421.552	5	Lin, Calc Int	11823.5	13060000	0.00000	0.999999
Sr 407.771	4	Lin, Calc Int	40252.9	35200000	0.00000	0.999964
Tl 190.801	6	Lin, Calc Int	7.1	1485	0.00000	0.999979
Tl 276.787	6	Lin, Calc Int	-6.4	2709	0.00000	0.999878
V 292.402	6	Lin, Calc Int	-583.7	129500	0.00000	0.999973
V 290.880	6	Lin, Calc Int	-615.6	92920	0.00000	0.999963
Zn 213.857	6	Lin, Calc Int	1709.2	96470	0.00000	0.999979
Zn 206.200	6	Lin, Calc Int	468.3	37870	0.00000	0.999955
P 213.617	6	Lin, Calc Int	-77.6	2099	0.00000	0.999892
P 214.914	6	Lin, Calc Int	-67.1	1830	0.00000	0.999895
Ti 334.940	6	Lin, Calc Int	-4005.5	537100	0.00000	0.999933
Ti 336.121	6	Lin, Calc Int	-4156.2	521700	0.00000	0.999933

Sequence No.: 1
Sample ID: Reagent Blank
Analyst:
Logged In Analyst (Original) : xp
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Data Collected: 6/10/2014 2:17:17 PM
Data Type: Reprocessed on 9/8/2014 1:58:35 PM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: Reagent Blank

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	780295.7	1.005	mg/L	0.0084				0.84%
Ag 328.068†	39.0	-0.0001	mg/L	0.00014	-0.0001	mg/L	0.00014	94.26%
Ag 338.289†	3.9	0.0010	mg/L	0.00078	0.0010	mg/L	0.00078	76.16%
Al 308.215†	-787.9	-0.0169	mg/L	0.00935	-0.0169	mg/L	0.00935	55.45%
Al 396.153†	-2627.6	0.0054	mg/L	0.00097	0.0054	mg/L	0.00097	18.07%
As 193.696†	-25.7	-0.0094	mg/L	0.00426	-0.0094	mg/L	0.00426	45.34%
As 188.979†	-30.3	-0.0147	mg/L	0.00282	-0.0147	mg/L	0.00282	19.17%
B 249.677†	-108.0	0.0135	mg/L	0.00159	0.0135	mg/L	0.00159	11.79%
B 249.772†	-108.0	0.0135	mg/L	0.00159	0.0135	mg/L	0.00159	11.79%
Ba 493.408†	12171.6	-0.0015	mg/L	0.00022	-0.0015	mg/L	0.00022	14.36%
Ba 233.527†	4.4	0.0009	mg/L	0.00024	0.0009	mg/L	0.00024	27.80%
Be 313.042†	-593.2	0.0024	mg/L	0.00004	0.0024	mg/L	0.00004	1.56%
Be 313.107†	-593.2	0.0024	mg/L	0.00004	0.0024	mg/L	0.00004	1.56%
Ca 315.887†	-3497.8	-0.0050	mg/L	0.00114	-0.0050	mg/L	0.00114	22.97%
Ca 317.933†	-4306.6	-0.0053	mg/L	0.00164	-0.0053	mg/L	0.00164	31.19%
Cd 226.502†	38.7	0.0030	mg/L	0.00021	0.0030	mg/L	0.00021	6.82%
Cd 228.802†	14.8	0.0051	mg/L	0.00048	0.0051	mg/L	0.00048	9.53%
Co 228.616†	-7.5	0.0001	mg/L	0.00024	0.0001	mg/L	0.00024	257.44%
Co 238.892†	17.7	-0.0010	mg/L	0.00045	-0.0010	mg/L	0.00045	44.07%
Cr 205.560†	14.6	0.0024	mg/L	0.00021	0.0024	mg/L	0.00021	8.90%
Cr 267.716†	-52.4	0.0018	mg/L	0.00014	0.0018	mg/L	0.00014	8.03%
Cu 324.752†	-798.4	-0.0458	mg/L	0.00015	-0.0458	mg/L	0.00015	0.32%
Cu 327.393†	-269.8	-0.0474	mg/L	0.00021	-0.0474	mg/L	0.00021	0.44%
Fe 259.939†	-17139.1	-0.0255	mg/L	0.00019	-0.0255	mg/L	0.00019	0.73%
Fe 238.204†	-10923.7	-0.0256	mg/L	0.00019	-0.0256	mg/L	0.00019	0.73%
Mg 279.077†	-440.7	-0.0097	mg/L	0.00122	-0.0097	mg/L	0.00122	12.63%
Mg 285.213†	-11946.3	0.0091	mg/L	0.00077	0.0091	mg/L	0.00077	8.50%
Mn 257.610†	-1355.9	0.0002	mg/L	0.00003	0.0002	mg/L	0.00003	16.32%
Mn 259.372†	-1750.2	-0.0001	mg/L	0.00010	-0.0001	mg/L	0.00010	119.46%
Mo 203.845†	-1.8	-0.0013	mg/L	0.00058	-0.0013	mg/L	0.00058	45.57%
Mo 202.031†	-1.5	0.0046	mg/L	0.00045	0.0046	mg/L	0.00045	9.91%
Ni 231.604†	0.4	0.0003	mg/L	0.00032	0.0003	mg/L	0.00032	106.43%
Ni 221.648†	-8.1	-0.0040	mg/L	0.00032	-0.0040	mg/L	0.00032	8.03%
Pb 220.353†	3.9	-0.0026	mg/L	0.00537	-0.0026	mg/L	0.00537	207.36%
Pb 217.000†	32.3	0.0052	mg/L	0.01335	0.0052	mg/L	0.01335	259.02%
Sb 206.836†	8.6	0.0044	mg/L	0.00578	0.0044	mg/L	0.00578	130.09%
Sb 217.582†	-5.4	0.0048	mg/L	0.00646	0.0048	mg/L	0.00646	133.98%
Se 196.026†	-20.3	-0.0093	mg/L	0.01382	-0.0093	mg/L	0.01382	149.08%
Se 203.985†	11.5	0.0087	mg/L	0.04320	0.0087	mg/L	0.04320	497.04%
Si 251.611†	-168.4	0.0014	mg/L	0.00545	0.0014	mg/L	0.00545	393.30%
Si 212.412†	29.6	0.0112	mg/L	0.00554	0.0112	mg/L	0.00554	49.46%
Sn 189.927†	-14.4	0.0008	mg/L	0.00042	0.0008	mg/L	0.00042	50.20%
Sn 235.485†	-167.5	-0.0224	mg/L	0.01521	-0.0224	mg/L	0.01521	67.80%
Sr 421.552†	3609.9	-0.0006	mg/L	0.00012	-0.0006	mg/L	0.00012	18.89%
Sr 407.771†	-828.5	-0.0012	mg/L	0.00013	-0.0012	mg/L	0.00013	10.72%
Tl 190.801†	10.7	0.0024	mg/L	0.00446	0.0024	mg/L	0.00446	187.25%
Tl 276.787†	-6.3	0.0000	mg/L	0.01044	0.0000	mg/L	0.01044	>999.9%
V 292.402†	81.5	0.0051	mg/L	0.00125	0.0051	mg/L	0.00125	24.35%
V 290.880†	-322.7	0.0032	mg/L	0.00124	0.0032	mg/L	0.00124	39.34%
Zn 213.857†	-272.4	-0.0205	mg/L	0.00050	-0.0205	mg/L	0.00050	2.41%
Zn 206.200†	-95.2	-0.0149	mg/L	0.00027	-0.0149	mg/L	0.00027	1.82%
P 213.617†	-335.0	-0.1226	mg/L	0.01034	-0.1226	mg/L	0.01034	8.43%
P 214.914†	-296.2	-0.1252	mg/L	0.01033	-0.1252	mg/L	0.01033	8.25%
Ti 334.940†	58.7	0.008	mg/L	0.0002	0.008	mg/L	0.0002	2.14%
Ti 336.121†	-51.5	0.008	mg/L	0.0001	0.008	mg/L	0.0001	1.45%

Method Loaded
Method Name: DW 200.7 9-2013
IEC File:
Method Description: DW EPA 200.7 022013

Method Last Saved: 8/8/2014 2:10:41 PM
MSF File: MSF 022113.msf

Sequence No.: 2
Sample ID: IPC Standard
Analyst:
Logged In Analyst (Original) : xp
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 6/10/2014 2:19:22 PM
Data Type: Reprocessed on 9/8/2014 1:58:37 PM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: IPC Standard

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	769268.7	0.9904	mg/L	0.00408				0.41%
Ag 328.068†	30619.7	0.1950	mg/L	0.00088	0.1950	mg/L	0.00088	0.45%
QC value within limits for Ag 328.068 Recovery = 97.51%								
Ag 338.289†	10401.1	0.1932	mg/L	0.00140	0.1932	mg/L	0.00140	0.72%
QC value within limits for Ag 338.289 Recovery = 96.60%								
Al 308.215†	33650.0	1.970	mg/L	0.0430	1.970	mg/L	0.0430	2.18%
QC value within limits for Al 308.215 Recovery = 98.49%								
Al 396.153†	390893.7	1.973	mg/L	0.0140	1.973	mg/L	0.0140	0.71%
QC value within limits for Al 396.153 Recovery = 98.66%								
As 193.696†	3619.9	2.044	mg/L	0.0323	2.044	mg/L	0.0323	1.58%
QC value within limits for As 193.696 Recovery = 102.19%								
As 188.979†	3216.7	2.029	mg/L	0.0399	2.029	mg/L	0.0399	1.97%
QC value within limits for As 188.979 Recovery = 101.44%								
B 249.677†	119176.5	1.948	mg/L	0.0045	1.948	mg/L	0.0045	0.23%
QC value within limits for B 249.677 Recovery = 97.40%								
B 249.772†	119176.5	1.948	mg/L	0.0045	1.948	mg/L	0.0045	0.23%
QC value within limits for B 249.772 Recovery = 97.40%								
Ba 493.408†	14878289.7	1.962	mg/L	0.0209	1.962	mg/L	0.0209	1.06%
QC value within limits for Ba 493.408 Recovery = 98.10%								
Ba 233.527†	130898.4	1.971	mg/L	0.0074	1.971	mg/L	0.0074	0.38%
QC value within limits for Ba 233.527 Recovery = 98.54%								
Be 313.042†	10413207.4	1.983	mg/L	0.0194	1.983	mg/L	0.0194	0.98%
QC value within limits for Be 313.042 Recovery = 99.15%								
Be 313.107†	10413207.4	1.983	mg/L	0.0194	1.983	mg/L	0.0194	0.98%
QC value within limits for Be 313.107 Recovery = 99.15%								
Ca 315.887†	123087.2	1.988	mg/L	0.0132	1.988	mg/L	0.0132	0.66%
QC value within limits for Ca 315.887 Recovery = 99.40%								
Ca 317.933†	244140.8	2.011	mg/L	0.0151	2.011	mg/L	0.0151	0.75%
QC value within limits for Ca 317.933 Recovery = 100.55%								
Cd 226.502†	182096.5	1.989	mg/L	0.0100	1.989	mg/L	0.0100	0.50%
QC value within limits for Cd 226.502 Recovery = 99.45%								
Cd 228.802†	98285.4	1.968	mg/L	0.0068	1.968	mg/L	0.0068	0.35%
QC value within limits for Cd 228.802 Recovery = 98.38%								
Co 228.616†	110907.5	1.991	mg/L	0.0097	1.991	mg/L	0.0097	0.49%
QC value within limits for Co 228.616 Recovery = 99.54%								
Co 238.892†	103295.1	1.987	mg/L	0.0070	1.987	mg/L	0.0070	0.35%
QC value within limits for Co 238.892 Recovery = 99.34%								
Cr 205.560†	56569.6	1.994	mg/L	0.0085	1.994	mg/L	0.0085	0.43%
QC value within limits for Cr 205.560 Recovery = 99.71%								
Cr 267.716†	184658.5	1.982	mg/L	0.0079	1.982	mg/L	0.0079	0.40%
QC value within limits for Cr 267.716 Recovery = 99.12%								
Cu 324.752†	433438.0	2.064	mg/L	0.0087	2.064	mg/L	0.0087	0.42%
QC value within limits for Cu 324.752 Recovery = 103.22%								
Cu 327.393†	302264.4	2.085	mg/L	0.0110	2.085	mg/L	0.0110	0.53%
QC value within limits for Cu 327.393 Recovery = 104.24%								
Fe 259.939†	249410.5	1.992	mg/L	0.0086	1.992	mg/L	0.0086	0.43%
QC value within limits for Fe 259.939 Recovery = 99.61%								
Fe 238.204†	160670.3	2.015	mg/L	0.0091	2.015	mg/L	0.0091	0.45%
QC value within limits for Fe 238.204 Recovery = 100.76%								
K 766.490†	782122.3	1.825	mg/L	0.0093	1.825	mg/L	0.0093	0.51%
QC value less than the lower limit for K 766.490 Recovery = 91.25%								
Mg 279.077†	35719.7	2.047	mg/L	0.0457	2.047	mg/L	0.0457	2.23%
QC value within limits for Mg 279.077 Recovery = 102.33%								
Mg 285.213†	1177645.8	1.953	mg/L	0.0117	1.953	mg/L	0.0117	0.60%
QC value within limits for Mg 285.213 Recovery = 97.65%								
Mn 257.610†	905686.6	1.974	mg/L	0.0092	1.974	mg/L	0.0092	0.47%
QC value within limits for Mn 257.610 Recovery = 98.71%								
Mn 259.372†	1078323.6	1.972	mg/L	0.0076	1.972	mg/L	0.0076	0.39%
QC value within limits for Mn 259.372 Recovery = 98.60%								
Mo 203.845†	17011.8	2.003	mg/L	0.0444	2.003	mg/L	0.0444	2.22%
QC value within limits for Mo 203.845 Recovery = 100.13%								

Mo 202.031†	35257.3	1.950 mg/L	0.0372	1.950 mg/L	0.0372	1.91%
QC value within limits for Mo 202.031 Recovery = 97.52%						
Na 588.995†	2504872.2	1.767 mg/L	0.0131	1.767 mg/L	0.0131	0.74%
QC value less than the lower limit for Na 588.995 Recovery = 88.35%						
Na 589.592†	1409843.1	1.722 mg/L	0.0139	1.722 mg/L	0.0139	0.81%
QC value less than the lower limit for Na 589.592 Recovery = 86.11%						
Ni 231.604†	65556.8	2.020 mg/L	0.0095	2.020 mg/L	0.0095	0.47%
QC value within limits for Ni 231.604 Recovery = 100.99%						
Ni 221.648†	56516.6	2.025 mg/L	0.0115	2.025 mg/L	0.0115	0.57%
QC value within limits for Ni 221.648 Recovery = 101.23%						
Pb 220.353†	14041.1	2.033 mg/L	0.0452	2.033 mg/L	0.0452	2.22%
QC value within limits for Pb 220.353 Recovery = 101.64%						
Pb 217.000†	3695.2	1.971 mg/L	0.0359	1.971 mg/L	0.0359	1.82%
QC value within limits for Pb 217.000 Recovery = 98.57%						
Sb 206.836†	6459.8	1.981 mg/L	0.0339	1.981 mg/L	0.0339	1.71%
QC value within limits for Sb 206.836 Recovery = 99.04%						
Sb 217.582†	8398.1	1.972 mg/L	0.0419	1.972 mg/L	0.0419	2.12%
QC value within limits for Sb 217.582 Recovery = 98.62%						
Se 196.026†	2261.6	2.035 mg/L	0.0366	2.035 mg/L	0.0366	1.80%
QC value within limits for Se 196.026 Recovery = 101.77%						
Se 203.985†	1245.7	2.040 mg/L	0.0585	2.040 mg/L	0.0585	2.87%
QC value within limits for Se 203.985 Recovery = 102.00%						
Si 251.611†	55659.7	1.995 mg/L	0.0466	1.995 mg/L	0.0466	2.34%
QC value within limits for Si 251.611 Recovery = 99.76%						
Si 212.412†	13454.3	2.002 mg/L	0.0416	2.002 mg/L	0.0416	2.08%
QC value within limits for Si 212.412 Recovery = 100.12%						
Sn 189.927†	11493.9	2.035 mg/L	0.0556	2.035 mg/L	0.0556	2.73%
QC value within limits for Sn 189.927 Recovery = 101.75%						
Sn 235.485†	19184.3	1.981 mg/L	0.0441	1.981 mg/L	0.0441	2.23%
QC value within limits for Sn 235.485 Recovery = 99.06%						
Sr 421.552†	25408215.3	1.945 mg/L	0.0202	1.945 mg/L	0.0202	1.04%
QC value within limits for Sr 421.552 Recovery = 97.27%						
Sr 407.771†	Saturated2					
Unable to evaluate QC.						
Tl 190.801†	3009.5	2.019 mg/L	0.0462	2.019 mg/L	0.0462	2.29%
QC value within limits for Tl 190.801 Recovery = 100.95%						
Tl 276.787†	5370.0	1.985 mg/L	0.0759	1.985 mg/L	0.0759	3.83%
QC value within limits for Tl 276.787 Recovery = 99.24%						
V 292.402†	251622.3	1.943 mg/L	0.0075	1.943 mg/L	0.0075	0.38%
QC value within limits for V 292.402 Recovery = 97.16%						
V 290.880†	179208.6	1.932 mg/L	0.0072	1.932 mg/L	0.0072	0.37%
QC value within limits for V 290.880 Recovery = 96.61%						
Zn 213.857†	195648.6	2.031 mg/L	0.0059	2.031 mg/L	0.0059	0.29%
QC value within limits for Zn 213.857 Recovery = 101.54%						
Zn 206.200†	77610.0	2.052 mg/L	0.0078	2.052 mg/L	0.0078	0.38%
QC value within limits for Zn 206.200 Recovery = 102.59%						
P 213.617†	3905.1	2.020 mg/L	0.0311	2.020 mg/L	0.0311	1.54%
QC value within limits for P 213.617 Recovery = 101.02%						
P 214.914†	3430.7	2.037 mg/L	0.0316	2.037 mg/L	0.0316	1.55%
QC value within limits for P 214.914 Recovery = 101.84%						
Ti 334.940†	1026325.7	1.911 mg/L	0.0096	1.911 mg/L	0.0096	0.50%
QC value within limits for Ti 334.940 Recovery = 95.54%						
Ti 336.121†	993280.2	1.904 mg/L	0.0092	1.904 mg/L	0.0092	0.48%
QC value within limits for Ti 336.121 Recovery = 95.19%						

QC Failed. Continue with analysis.

Method Loaded
Method Name: DW 200.7 9-2013 **Method Last Saved: 8/8/2014 2:10:41 PM**
IEC File: **MSF File: MSF 022113.msf**
Method Description: DW EPA 200.7 022013

Sequence No.: 3 **Autosampler Location: 1**
Sample ID: CCB **Date Collected: 6/10/2014 2:23:43 PM**
Analyst: **Data Type: Reprocessed on 9/8/2014 1:58:38 PM**
Logged In Analyst (Original) : xp
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD

Y 371.029	789446.2	1.016 mg/L	0.0048				0.47%
Ag 328.068†	0.1	-0.0002 mg/L	0.00027	-0.0002 mg/L		0.00027	108.46%
QC value within limits for Ag 328.068 Recovery = Not calculated							
Ag 338.289†	-38.7	-0.0008 mg/L	0.00023	-0.0008 mg/L		0.00023	28.70%
QC value within limits for Ag 338.289 Recovery = Not calculated							
Al 308.215†	-510.5	0.0159 mg/L	0.00065	0.0159 mg/L		0.00065	4.08%
QC value within limits for Al 308.215 Recovery = Not calculated							
Al 396.153†	899.1	0.0177 mg/L	0.00492	0.0177 mg/L		0.00492	27.84%
QC value within limits for Al 396.153 Recovery = Not calculated							
As 193.696†	-26.6	-0.0005 mg/L	0.00705	-0.0005 mg/L		0.00705	>999.9%
QC value within limits for As 193.696 Recovery = Not calculated							
As 188.979†	-34.7	-0.0028 mg/L	0.00361	-0.0028 mg/L		0.00361	129.82%
QC value within limits for As 188.979 Recovery = Not calculated							
B 249.677†	-287.6	-0.0029 mg/L	0.00052	-0.0029 mg/L		0.00052	17.86%
QC value within limits for B 249.677 Recovery = Not calculated							
B 249.772†	-287.6	-0.0029 mg/L	0.00052	-0.0029 mg/L		0.00052	17.86%
QC value within limits for B 249.772 Recovery = Not calculated							
Ba 493.408†	8492.9	-0.0005 mg/L	0.00010	-0.0005 mg/L		0.00010	21.44%
QC value within limits for Ba 493.408 Recovery = Not calculated							
Ba 233.527†	1.6	-0.0000 mg/L	0.00006	-0.0000 mg/L		0.00006	143.53%
QC value within limits for Ba 233.527 Recovery = Not calculated							
Be 313.042†	-122.9	0.0001 mg/L	0.00003	0.0001 mg/L		0.00003	29.24%
QC value within limits for Be 313.042 Recovery = Not calculated							
Be 313.107†	-122.9	0.0001 mg/L	0.00003	0.0001 mg/L		0.00003	29.24%
QC value within limits for Be 313.107 Recovery = Not calculated							
Ca 315.887†	-1127.2	0.0372 mg/L	0.00459	0.0372 mg/L		0.00459	12.32%
QC value within limits for Ca 315.887 Recovery = Not calculated							
Ca 317.933†	-14.4	0.0347 mg/L	0.00006	0.0347 mg/L		0.00006	0.18%
QC value within limits for Ca 317.933 Recovery = Not calculated							
Cd 226.502†	18.2	-0.0002 mg/L	0.00008	-0.0002 mg/L		0.00008	35.12%
QC value within limits for Cd 226.502 Recovery = Not calculated							
Cd 228.802†	16.5	0.0000 mg/L	0.00013	0.0000 mg/L		0.00013	374.92%
QC value within limits for Cd 228.802 Recovery = Not calculated							
Co 228.616†	3.8	0.0002 mg/L	0.00053	0.0002 mg/L		0.00053	261.30%
QC value within limits for Co 228.616 Recovery = Not calculated							
Co 238.892†	5.9	-0.0002 mg/L	0.00036	-0.0002 mg/L		0.00036	157.99%
QC value within limits for Co 238.892 Recovery = Not calculated							
Cr 205.560†	17.2	0.0001 mg/L	0.00011	0.0001 mg/L		0.00011	121.40%
QC value within limits for Cr 205.560 Recovery = Not calculated							
Cr 267.716†	1.3	0.0006 mg/L	0.00004	0.0006 mg/L		0.00004	6.82%
QC value within limits for Cr 267.716 Recovery = Not calculated							
Cu 324.752†	-708.0	0.0004 mg/L	0.00036	0.0004 mg/L		0.00036	84.78%
QC value within limits for Cu 324.752 Recovery = Not calculated							
Cu 327.393†	-216.6	0.0004 mg/L	0.00025	0.0004 mg/L		0.00025	67.81%
QC value within limits for Cu 327.393 Recovery = Not calculated							
Fe 259.939†	-1773.5	0.1148 mg/L	0.00110	0.1148 mg/L		0.00110	0.95%
QC value greater than the upper limit for Fe 259.939 Recovery = Not calculated							
Fe 238.204†	-1074.3	0.1157 mg/L	0.00115	0.1157 mg/L		0.00115	0.99%
QC value greater than the upper limit for Fe 238.204 Recovery = Not calculated							
K 766.490†	-2914.6	-0.0068 mg/L	0.00516	-0.0068 mg/L		0.00516	75.92%
QC value within limits for K 766.490 Recovery = Not calculated							
Mg 279.077†	-126.8	0.0178 mg/L	0.00176	0.0178 mg/L		0.00176	9.93%
QC value within limits for Mg 279.077 Recovery = Not calculated							
Mg 285.213†	-1284.7	0.0175 mg/L	0.00096	0.0175 mg/L		0.00096	5.46%
QC value within limits for Mg 285.213 Recovery = Not calculated							
Mn 257.610†	-174.6	0.0026 mg/L	0.00006	0.0026 mg/L		0.00006	2.26%
QC value within limits for Mn 257.610 Recovery = Not calculated							
Mn 259.372†	-244.0	0.0028 mg/L	0.00003	0.0028 mg/L		0.00003	1.11%
QC value within limits for Mn 259.372 Recovery = Not calculated							
Mo 203.845†	9.0	0.0013 mg/L	0.00056	0.0013 mg/L		0.00056	44.04%
QC value within limits for Mo 203.845 Recovery = Not calculated							
Mo 202.031†	9.0	0.0006 mg/L	0.00111	0.0006 mg/L		0.00111	189.51%
QC value within limits for Mo 202.031 Recovery = Not calculated							
Na 588.995†	-22889.4	-0.0161 mg/L	0.00338	-0.0161 mg/L		0.00338	20.95%
QC value within limits for Na 588.995 Recovery = Not calculated							
Na 589.592†	-19859.4	-0.0243 mg/L	0.00292	-0.0243 mg/L		0.00292	12.04%
QC value within limits for Na 589.592 Recovery = Not calculated							
Ni 231.604†	-26.3	-0.0008 mg/L	0.00051	-0.0008 mg/L		0.00051	61.45%
QC value within limits for Ni 231.604 Recovery = Not calculated							
Ni 221.648†	18.8	0.0010 mg/L	0.00076	0.0010 mg/L		0.00076	79.14%
QC value within limits for Ni 221.648 Recovery = Not calculated							
Pb 220.353†	-8.1	-0.0017 mg/L	0.00462	-0.0017 mg/L		0.00462	265.24%
QC value within limits for Pb 220.353 Recovery = Not calculated							
Pb 217.000†	22.7	-0.0052 mg/L	0.01616	-0.0052 mg/L		0.01616	311.47%

QC value within limits for Pb 217.000 Recovery = Not calculated

Sb 206.836†	3.1	-0.0017	mg/L	0.00301	-0.0017	mg/L	0.00301 179.73%

QC value within limits for Sb 206.836 Recovery = Not calculated

Sb 217.582†	-4.4	0.0002	mg/L	0.00798	0.0002	mg/L	0.00798 >999.9%

QC value within limits for Sb 217.582 Recovery = Not calculated

Se 196.026†	-20.3	0.0000	mg/L	0.01244	0.0000	mg/L	0.01244 >999.9%

QC value within limits for Se 196.026 Recovery = Not calculated

Se 203.985†	-11.8	-0.0386	mg/L	0.01470	-0.0386	mg/L	0.01470 38.12%

QC value within limits for Se 203.985 Recovery = Not calculated

Si 251.611†	-96.0	0.0026	mg/L	0.00498	0.0026	mg/L	0.00498 192.55%

QC value within limits for Si 251.611 Recovery = Not calculated

Si 212.412†	1.2	-0.0042	mg/L	0.00849	-0.0042	mg/L	0.00849 200.41%

QC value within limits for Si 212.412 Recovery = Not calculated

Sn 189.927†	-9.5	0.0009	mg/L	0.00332	0.0009	mg/L	0.00332 381.84%

QC value within limits for Sn 189.927 Recovery = Not calculated

Sn 235.485†	-4.1	0.0167	mg/L	0.00923	0.0167	mg/L	0.00923 55.19%

QC value within limits for Sn 235.485 Recovery = Not calculated

Sr 421.552†	3828.1	0.0000	mg/L	0.00007	0.0000	mg/L	0.00007 412.27%

QC value within limits for Sr 421.552 Recovery = Not calculated

Sr 407.771†	556.5	0.0000	mg/L	0.00005	0.0000	mg/L	0.00005 134.26%

QC value within limits for Sr 407.771 Recovery = Not calculated

Tl 190.801†	-4.0	-0.0099	mg/L	0.00710	-0.0099	mg/L	0.00710 71.79%

QC value within limits for Tl 190.801 Recovery = Not calculated

Tl 276.787†	-16.3	-0.0037	mg/L	0.02143	-0.0037	mg/L	0.02143 577.95%

QC value within limits for Tl 276.787 Recovery = Not calculated

V 292.402†	20.2	-0.0005	mg/L	0.00019	-0.0005	mg/L	0.00019 39.20%

QC value within limits for V 292.402 Recovery = Not calculated

V 290.880†	-313.8	0.0001	mg/L	0.00045	0.0001	mg/L	0.00045 463.37%

QC value within limits for V 290.880 Recovery = Not calculated

Zn 213.857†	-169.4	0.0011	mg/L	0.00070	0.0011	mg/L	0.00070 65.90%

QC value within limits for Zn 213.857 Recovery = Not calculated

Zn 206.200†	-57.7	0.0010	mg/L	0.00033	0.0010	mg/L	0.00033 32.82%

QC value within limits for Zn 206.200 Recovery = Not calculated

P 213.617†	-321.8	0.0063	mg/L	0.00873	0.0063	mg/L	0.00873 138.61%

QC value within limits for P 213.617 Recovery = Not calculated

P 214.914†	-243.6	0.0287	mg/L	0.00952	0.0287	mg/L	0.00952 33.13%

QC value within limits for P 214.914 Recovery = Not calculated

Ti 334.940†	183.8	0.000	mg/L	0.0000	0.000	mg/L	0.0000 11.72%

QC value within limits for Ti 334.940 Recovery = Not calculated

Ti 336.121†	45.5	0.000	mg/L	0.0002	0.000	mg/L	0.0002 106.37%

QC value within limits for Ti 336.121 Recovery = Not calculated

QC Failed. Continue with analysis.

Method Loaded
Method Name: DW 200.7 9-2013 **Method Last Saved: 8/8/2014 2:10:41 PM**
IEC File: **MSF File: MSF 022113.msf**
Method Description: DW EPA 200.7 022013

Sequence No.: 4 **Autosampler Location: 6**
Sample ID: CCV **Date Collected: 6/10/2014 2:25:48 PM**
Analyst: **Data Type: Reprocessed on 9/8/2014 1:58:40 PM**
Logged In Analyst (Original) : xp
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	768886.4	0.9899	mg/L	0.01580				1.60%
Ag 328.068†	30525.0	0.1944	mg/L	0.00075	0.1944	mg/L	0.00075	0.39%
QC value within limits for Ag 328.068 Recovery = 97.21%								
Ag 338.289†	10361.0	0.1925	mg/L	0.00098	0.1925	mg/L	0.00098	0.51%
QC value within limits for Ag 338.289 Recovery = 96.23%								
Al 308.215†	33387.0	1.955	mg/L	0.0647	1.955	mg/L	0.0647	3.31%
QC value within limits for Al 308.215 Recovery = 97.74%								
Al 396.153†	387717.2	1.957	mg/L	0.0168	1.957	mg/L	0.0168	0.86%
QC value within limits for Al 396.153 Recovery = 97.86%								
As 193.696†	3610.5	2.038	mg/L	0.0479	2.038	mg/L	0.0479	2.35%
QC value within limits for As 193.696 Recovery = 101.92%								
As 188.979†	3211.5	2.026	mg/L	0.0526	2.026	mg/L	0.0526	2.60%
QC value within limits for As 188.979 Recovery = 101.28%								

B 249.677†	119743.8	1.957 mg/L	0.0053	1.957 mg/L	0.0053	0.27%
QC value within limits for B 249.677 Recovery = 97.86%						
B 249.772†	119743.8	1.957 mg/L	0.0053	1.957 mg/L	0.0053	0.27%
QC value within limits for B 249.772 Recovery = 97.86%						
Ba 493.408†	14922684.3	1.968 mg/L	0.0434	1.968 mg/L	0.0434	2.20%
QC value within limits for Ba 493.408 Recovery = 98.40%						
Ba 233.527†	130226.4	1.961 mg/L	0.0049	1.961 mg/L	0.0049	0.25%
QC value within limits for Ba 233.527 Recovery = 98.04%						
Be 313.042†	10409258.6	1.982 mg/L	0.0439	1.982 mg/L	0.0439	2.21%
QC value within limits for Be 313.042 Recovery = 99.11%						
Be 313.107†	10409258.6	1.982 mg/L	0.0439	1.982 mg/L	0.0439	2.21%
QC value within limits for Be 313.107 Recovery = 99.11%						
Ca 315.887†	122695.7	1.982 mg/L	0.0039	1.982 mg/L	0.0039	0.20%
QC value within limits for Ca 315.887 Recovery = 99.09%						
Ca 317.933†	241906.2	1.993 mg/L	0.0054	1.993 mg/L	0.0054	0.27%
QC value within limits for Ca 317.933 Recovery = 99.64%						
Cd 226.502†	181404.4	1.981 mg/L	0.0052	1.981 mg/L	0.0052	0.26%
QC value within limits for Cd 226.502 Recovery = 99.07%						
Cd 228.802†	98201.3	1.966 mg/L	0.0045	1.966 mg/L	0.0045	0.23%
QC value within limits for Cd 228.802 Recovery = 98.30%						
Co 228.616†	110145.7	1.977 mg/L	0.0080	1.977 mg/L	0.0080	0.41%
QC value within limits for Co 228.616 Recovery = 98.86%						
Co 238.892†	102959.7	1.980 mg/L	0.0039	1.980 mg/L	0.0039	0.20%
QC value within limits for Co 238.892 Recovery = 99.02%						
Cr 205.560†	56218.3	1.982 mg/L	0.0040	1.982 mg/L	0.0040	0.20%
QC value within limits for Cr 205.560 Recovery = 99.09%						
Cr 267.716†	184151.7	1.977 mg/L	0.0037	1.977 mg/L	0.0037	0.19%
QC value within limits for Cr 267.716 Recovery = 98.85%						
Cu 324.752†	429495.1	2.046 mg/L	0.0057	2.046 mg/L	0.0057	0.28%
QC value within limits for Cu 324.752 Recovery = 102.28%						
Cu 327.393†	299608.7	2.066 mg/L	0.0072	2.066 mg/L	0.0072	0.35%
QC value within limits for Cu 327.393 Recovery = 103.32%						
Fe 259.939†	247522.8	1.978 mg/L	0.0016	1.978 mg/L	0.0016	0.08%
QC value within limits for Fe 259.939 Recovery = 98.91%						
Fe 238.204†	158855.0	1.994 mg/L	0.0051	1.994 mg/L	0.0051	0.26%
QC value within limits for Fe 238.204 Recovery = 99.69%						
K 766.490†	772677.0	1.803 mg/L	0.0178	1.803 mg/L	0.0178	0.99%
QC value within limits for K 766.490 Recovery = 90.15%						
Mg 279.077†	35484.9	2.033 mg/L	0.0469	2.033 mg/L	0.0469	2.31%
QC value within limits for Mg 279.077 Recovery = 101.66%						
Mg 285.213†	1170067.8	1.941 mg/L	0.0058	1.941 mg/L	0.0058	0.30%
QC value within limits for Mg 285.213 Recovery = 97.03%						
Mn 257.610†	902268.4	1.967 mg/L	0.0031	1.967 mg/L	0.0031	0.16%
QC value within limits for Mn 257.610 Recovery = 98.34%						
Mn 259.372†	1076937.7	1.970 mg/L	0.0018	1.970 mg/L	0.0018	0.09%
QC value within limits for Mn 259.372 Recovery = 98.48%						
Mo 203.845†	16952.7	1.996 mg/L	0.0596	1.996 mg/L	0.0596	2.99%
QC value within limits for Mo 203.845 Recovery = 99.78%						
Mo 202.031†	35140.3	1.944 mg/L	0.0593	1.944 mg/L	0.0593	3.05%
QC value within limits for Mo 202.031 Recovery = 97.20%						
Na 588.995†	2465079.5	1.739 mg/L	0.0066	1.739 mg/L	0.0066	0.38%
QC value less than the lower limit for Na 588.995 Recovery = 86.94%						
Na 589.592†	1387658.4	1.695 mg/L	0.0073	1.695 mg/L	0.0073	0.43%
QC value less than the lower limit for Na 589.592 Recovery = 84.76%						
Ni 231.604†	65142.5	2.007 mg/L	0.0067	2.007 mg/L	0.0067	0.33%
QC value within limits for Ni 231.604 Recovery = 100.35%						
Ni 221.648†	55958.9	2.005 mg/L	0.0049	2.005 mg/L	0.0049	0.24%
QC value within limits for Ni 221.648 Recovery = 100.23%						
Pb 220.353†	14071.9	2.037 mg/L	0.0437	2.037 mg/L	0.0437	2.15%
QC value within limits for Pb 220.353 Recovery = 101.8						
Pb 217.000†	3645.4	1.945 mg/L	0.0830	1.945 mg/L	0.0830	4.27%
QC value within limits for Pb 217.000 Recovery = 97.23%						
Sb 206.836†	6418.9	1.968 mg/L	0.0545	1.968 mg/L	0.0545	2.77%
QC value within limits for Sb 206.836 Recovery = 98.41%						
Sb 217.582†	8348.6	1.961 mg/L	0.0500	1.961 mg/L	0.0500	2.55%
QC value within limits for Sb 217.582 Recovery = 98.04%						
Se 196.026†	2255.0	2.029 mg/L	0.0711	2.029 mg/L	0.0711	3.50%
QC value within limits for Se 196.026 Recovery = 101.47%						
Se 203.985†	1225.7	2.007 mg/L	0.0666	2.007 mg/L	0.0666	3.32%
QC value within limits for Se 203.985 Recovery = 100.35%						
Si 251.611†	64831.7	2.323 mg/L	0.0592	2.323 mg/L	0.0592	2.55%
QC value greater than the upper limit for Si 251.611 Recovery = 116.15%						
Si 212.412†	15563.1	2.317 mg/L	0.0654	2.317 mg/L	0.0654	2.82%
QC value greater than the upper limit for Si 212.412 Recovery = 115.85%						

Sn 189.927†	11428.2	2.023 mg/L	0.0601	2.023 mg/L	0.0601	2.97%
QC value within limits for Sn 189.927 Recovery = 101.17%						
Sn 235.485†	19141.7	1.977 mg/L	0.0522	1.977 mg/L	0.0522	2.64%
QC value within limits for Sn 235.485 Recovery = 98.84%						
Sr 421.552†	25405415.3	1.945 mg/L	0.0424	1.945 mg/L	0.0424	2.18%
QC value within limits for Sr 421.552 Recovery = 97.26%						
Sr 407.771†	Saturated2					
Unable to evaluate QC.						
Tl 190.801†	2997.5	2.011 mg/L	0.0540	2.011 mg/L	0.0540	2.69%
QC value within limits for Tl 190.801 Recovery = 100.54%						
Tl 276.787†	5317.7	1.966 mg/L	0.0431	1.966 mg/L	0.0431	2.19%
QC value within limits for Tl 276.787 Recovery = 98.28%						
V 292.402†	251300.9	1.941 mg/L	0.0011	1.941 mg/L	0.0011	0.06%
QC value within limits for V 292.402 Recovery = 97.03%						
V 290.880†	178868.6	1.928 mg/L	0.0021	1.928 mg/L	0.0021	0.11%
QC value within limits for V 290.880 Recovery = 96.42%						
Zn 213.857†	194833.0	2.022 mg/L	0.0059	2.022 mg/L	0.0059	0.29%
QC value within limits for Zn 213.857 Recovery = 101.12%						
Zn 206.200†	77493.1	2.049 mg/L	0.0055	2.049 mg/L	0.0055	0.27%
QC value within limits for Zn 206.200 Recovery = 102.44%						
P 213.617†	3867.4	2.003 mg/L	0.0722	2.003 mg/L	0.0722	3.60%
QC value within limits for P 213.617 Recovery = 100.13%						
P 214.914†	3397.4	2.019 mg/L	0.0620	2.019 mg/L	0.0620	3.07%
QC value within limits for P 214.914 Recovery = 100.93%						
Ti 334.940†	1026645.9	1.911 mg/L	0.0101	1.911 mg/L	0.0101	0.53%
QC value within limits for Ti 334.940 Recovery = 95.57%						
Ti 336.121†	993379.4	1.904 mg/L	0.0099	1.904 mg/L	0.0099	0.52%
QC value within limits for Ti 336.121 Recovery = 95.20%						

QC Failed. Continue with analysis.

Method Loaded
Method Name: DW 200.7 9-2013 **Method Last Saved: 8/8/2014 2:10:41 PM**
IEC File: **MSF File: MSF 022113.msf**
Method Description: DW EPA 200.7 022013

Sequence No.: 5 **Autosampler Location: 4**
Sample ID: RLC 2 **Date Collected: 6/10/2014 2:28:06 PM**
Analyst: **Data Type: Reprocessed on 9/8/2014 1:58:42 PM**
Logged In Analyst (Original) : xp
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: RLC 2

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Y 371.029	781963.2	1.007 mg/L	0.0098			0.97%
Ag 328.068†	1648.4	0.0101 mg/L	0.00033	0.0101 mg/L	0.00033	3.24%
QC value less than the lower limit for Ag 328.068 Recovery = 10.12%						
Ag 338.289†	496.4	0.0102 mg/L	0.00015	0.0102 mg/L	0.00015	1.52%
QC value less than the lower limit for Ag 338.289 Recovery = 10.18%						
Al 308.215†	1032.2	0.0872 mg/L	0.02116	0.0872 mg/L	0.02116	24.25%
QC value within limits for Al 308.215 Recovery = 87.24%						
Al 396.153†	17635.9	0.1070 mg/L	0.00130	0.1070 mg/L	0.00130	1.22%
QC value within limits for Al 396.153 Recovery = 106.97%						
As 193.696†	144.3	0.0859 mg/L	0.00690	0.0859 mg/L	0.00690	8.03%
QC value within limits for As 193.696 Recovery = 85.90%						
As 188.979†	135.0	0.0885 mg/L	0.00528	0.0885 mg/L	0.00528	5.96%
QC value within limits for As 188.979 Recovery = 88.52%						
B 249.677†	6569.9	0.1226 mg/L	0.00392	0.1226 mg/L	0.00392	3.20%
QC value within limits for B 249.677 Recovery = 122.56%						
B 249.772†	6569.9	0.1226 mg/L	0.00392	0.1226 mg/L	0.00392	3.20%
QC value within limits for B 249.772 Recovery = 122.56%						
Ba 493.408†	791381.5	0.1013 mg/L	0.00028	0.1013 mg/L	0.00028	0.27%
QC value within limits for Ba 493.408 Recovery = 101.34%						
Ba 233.527†	6771.3	0.1028 mg/L	0.00335	0.1028 mg/L	0.00335	3.26%
QC value within limits for Ba 233.527 Recovery = 102.77%						
Be 313.042†	523971.6	0.1023 mg/L	0.00012	0.1023 mg/L	0.00012	0.11%
QC value within limits for Be 313.042 Recovery = 102.31%						
Be 313.107†	523971.6	0.1023 mg/L	0.00012	0.1023 mg/L	0.00012	0.11%
QC value within limits for Be 313.107 Recovery = 102.31%						
Ca 315.887†	7727.2	0.1713 mg/L	0.06024	0.1713 mg/L	0.06024	35.16%

QC value greater than the upper limit for Ca 315.887 Recovery = 171.31%

Ca 317.933†	9283.0	0.1047 mg/L	0.00341	0.1047 mg/L	0.00341	3.26%
QC value within limits for Ca 317.933 Recovery = 104.73%						
Cd 226.502†	9413.1	0.1054 mg/L	0.00250	0.1054 mg/L	0.00250	2.37%
QC value within limits for Cd 226.502 Recovery = 105.43%						
Cd 228.802†	5113.9	0.1072 mg/L	0.00298	0.1072 mg/L	0.00298	2.78%
QC value within limits for Cd 228.802 Recovery = 107.15%						
Co 228.616†	5655.2	0.1017 mg/L	0.00299	0.1017 mg/L	0.00299	2.94%
QC value within limits for Co 228.616 Recovery = 101.73%						
Co 238.892†	5409.8	0.1027 mg/L	0.00308	0.1027 mg/L	0.00308	3.00%
QC value within limits for Co 238.892 Recovery = 102.71%						
Cr 205.560†	2941.6	0.1056 mg/L	0.00365	0.1056 mg/L	0.00365	3.45%
QC value within limits for Cr 205.560 Recovery = 105.60%						
Cr 267.716†	9679.3	0.1062 mg/L	0.00290	0.1062 mg/L	0.00290	2.73%
QC value within limits for Cr 267.716 Recovery = 106.25%						
Cu 324.752†	24107.4	0.0726 mg/L	0.00398	0.0726 mg/L	0.00398	5.48%
QC value within limits for Cu 324.752 Recovery = 72.62%						
Cu 327.393†	17334.5	0.0739 mg/L	0.00357	0.0739 mg/L	0.00357	4.83%
QC value within limits for Cu 327.393 Recovery = 73.94%						
Fe 259.939†	-3565.6	0.0760 mg/L	0.00298	0.0760 mg/L	0.00298	3.92%
QC value within limits for Fe 259.939 Recovery = 75.98%						
Fe 238.204†	-2260.7	0.0761 mg/L	0.00299	0.0761 mg/L	0.00299	3.93%
QC value within limits for Fe 238.204 Recovery = 76.10%						
K 766.490†	30428.8	0.0710 mg/L	0.00088	0.0710 mg/L	0.00088	1.24%
QC value within limits for K 766.490 Recovery = 71.01%						
Mg 279.077†	1419.5	0.0956 mg/L	0.00480	0.0956 mg/L	0.00480	5.02%
QC value within limits for Mg 279.077 Recovery = 95.58%						
Mg 285.213†	47944.6	0.1074 mg/L	0.00343	0.1074 mg/L	0.00343	3.19%
QC value within limits for Mg 285.213 Recovery = 107.38%						
Mn 257.610†	45461.9	0.1021 mg/L	0.00033	0.1021 mg/L	0.00033	0.33%
QC value within limits for Mn 257.610 Recovery = 102.08%						
Mn 259.372†	54127.7	0.1019 mg/L	0.00025	0.1019 mg/L	0.00025	0.24%
QC value within limits for Mn 259.372 Recovery = 101.94%						
Mo 203.845†	979.7	0.1143 mg/L	0.00447	0.1143 mg/L	0.00447	3.91%
QC value within limits for Mo 203.845 Recovery = 114.26%						
Mo 202.031†	2009.3	0.1158 mg/L	0.00277	0.1158 mg/L	0.00277	2.39%
QC value within limits for Mo 202.031 Recovery = 115.80%						
Na 588.995†	55816.7	0.0394 mg/L	0.00292	0.0394 mg/L	0.00292	7.41%
QC value less than the lower limit for Na 588.995 Recovery = 39.37%						
Na 589.592†	24782.1	0.0303 mg/L	0.00314	0.0303 mg/L	0.00314	10.37%
QC value less than the lower limit for Na 589.592 Recovery = 30.27%						
Ni 231.604†	3390.3	0.1047 mg/L	0.00148	0.1047 mg/L	0.00148	1.41%
QC value within limits for Ni 231.604 Recovery = 104.74%						
Ni 221.648†	2948.6	0.1019 mg/L	0.00248	0.1019 mg/L	0.00248	2.43%
QC value within limits for Ni 221.648 Recovery = 101.92%						
Pb 220.353†	716.3	0.1006 mg/L	0.00533	0.1006 mg/L	0.00533	5.30%
QC value within limits for Pb 220.353 Recovery = 100.57%						
Pb 217.000†	213.8	0.1028 mg/L	0.02373	0.1028 mg/L	0.02373	23.08%
QC value within limits for Pb 217.000 Recovery = 102.83%						
Sb 206.836†	343.1	0.1072 mg/L	0.00470	0.1072 mg/L	0.00470	4.39%
QC value within limits for Sb 206.836 Recovery = 107.15%						
Sb 217.582†	431.9	0.1075 mg/L	0.00439	0.1075 mg/L	0.00439	4.08%
QC value within limits for Sb 217.582 Recovery = 107.46%						
Se 196.026†	120.9	0.1167 mg/L	0.01888	0.1167 mg/L	0.01888	16.18%
QC value within limits for Se 196.026 Recovery = 116.70%						
Se 203.985†	62.9	0.0936 mg/L	0.01588	0.0936 mg/L	0.01588	16.96%
QC value within limits for Se 203.985 Recovery = 93.62%						
Si 251.611†	2419.2	0.0939 mg/L	0.00183	0.0939 mg/L	0.00183	1.95%
QC value within limits for Si 251.611 Recovery = 93.86%						
Si 212.412†	619.7	0.09 mg/L	0.00706	0.0992 mg/L	0.00706	7.12%
QC value within limits for Si 212.412 Recovery = 99.22%						
Sn 189.927†	599.7	0.1094 mg/L	0.00603	0.1094 mg/L	0.00603	5.51%
QC value within limits for Sn 189.927 Recovery = 109.44%						
Sn 235.485†	1134.4	0.1109 mg/L	0.00919	0.1109 mg/L	0.00919	8.29%
QC value within limits for Sn 235.485 Recovery = 110.86%						
Sr 421.552†	1314501.7	0.0998 mg/L	0.00051	0.0998 mg/L	0.00051	0.51%
QC value within limits for Sr 421.552 Recovery = 99.75%						
Sr 407.771†	3570275.8	0.1003 mg/L	0.00044	0.1003 mg/L	0.00044	0.44%
QC value within limits for Sr 407.771 Recovery = 100.29%						
Tl 190.801†	152.0	0.0975 mg/L	0.00154	0.0975 mg/L	0.00154	1.58%
QC value within limits for Tl 190.801 Recovery = 97.49%						
Tl 276.787†	242.4	0.0918 mg/L	0.03472	0.0918 mg/L	0.03472	37.81%
QC value within limits for Tl 276.787 Recovery = 91.83%						
V 292.402†	13173.8	0.1063 mg/L	0.00261	0.1063 mg/L	0.00261	2.46%

QC value within limits for V 292.402 Recovery = 106.28%

V 290.880†	9097.3	0.1045 mg/L	0.00412	0.1045 mg/L	0.00412	3.95%

QC value within limits for V 290.880 Recovery = 104.53%

Zn 213.857†	10542.7	0.0916 mg/L	0.00368	0.0916 mg/L	0.00368	4.02%

QC value within limits for Zn 213.857 Recovery = 91.57%

Zn 206.200†	4104.3	0.0960 mg/L	0.00203	0.0960 mg/L	0.00203	2.11%

QC value within limits for Zn 206.200 Recovery = 96.01%

P 213.617†	-122.9	-0.0216 mg/L	0.01242	-0.0216 mg/L	0.01242	57.55%

QC value less than the lower limit for P 213.617 Recovery = -21.58%

P 214.914†	-77.7	-0.0058 mg/L	0.00842	-0.0058 mg/L	0.00842	146.18%

QC value less than the lower limit for P 214.914 Recovery = -5.76%

Ti 334.940†	53575.4	0.107 mg/L	0.0033	0.107 mg/L	0.0033	3.04%

QC value within limits for Ti 334.940 Recovery = 107.21%

Ti 336.121†	51235.0	0.106 mg/L	0.0006	0.106 mg/L	0.0006	0.54%

QC value within limits for Ti 336.121 Recovery = 106.17%

QC Failed. Continue with analysis.

Method Loaded
Method Name: DW 200.7 9-2013 **Method Last Saved: 8/8/2014 2:10:41 PM**
IEC File: **MSF File: MSF 022113.msf**
Method Description: DW EPA 200.7 022013

Sequence No.: 6 **Autosampler Location: 11**
Sample ID: SS 1.00 **Date Collected: 6/10/2014 2:30:10 PM**
Analyst: **Data Type: Reprocessed on 9/8/2014 1:58:43 PM**
Logged In Analyst (Original) : xp
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: SS 1.00

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	761778.5	0.9807	mg/L	0.00766				0.78%
Ag 328.068†	16699.7	0.1063	mg/L	0.00051	0.1063	mg/L	0.00051	0.48%
Ag 338.289†	5520.7	0.1025	mg/L	0.00079	0.1025	mg/L	0.00079	0.77%
Al 308.215†	17049.8	1.020	mg/L	0.0074	1.020	mg/L	0.0074	0.72%
Al 396.153†	196946.3	1.001	mg/L	0.0014	1.001	mg/L	0.0014	0.14%
As 193.696†	1840.4	1.046	mg/L	0.0215	1.046	mg/L	0.0215	2.06%
As 188.979†	1657.0	1.054	mg/L	0.0172	1.054	mg/L	0.0172	1.63%
B 249.677†	60847.9	0.9955	mg/L	0.00418	0.9955	mg/L	0.00418	0.42%
B 249.772†	60847.9	0.9955	mg/L	0.00418	0.9955	mg/L	0.00418	0.42%
Ba 493.408†	7829267.1	1.032	mg/L	0.0068	1.032	mg/L	0.0068	0.66%
Ba 233.527†	66814.9	1.006	mg/L	0.0020	1.006	mg/L	0.0020	0.20%
Be 313.042†	5377766.4	1.024	mg/L	0.0075	1.024	mg/L	0.0075	0.74%
Be 313.107†	5377766.4	1.024	mg/L	0.0075	1.024	mg/L	0.0075	0.74%
Ca 315.887†	61129.0	1.015	mg/L	0.0010	1.015	mg/L	0.0010	0.10%
Ca 317.933†	121747.6	1.020	mg/L	0.0010	1.020	mg/L	0.0010	0.10%
Cd 226.502†	92834.2	1.014	mg/L	0.0006	1.014	mg/L	0.0006	0.06%
Cd 228.802†	50414.7	1.009	mg/L	0.0021	1.009	mg/L	0.0021	0.20%
Co 228.616†	56550.6	1.015	mg/L	0.0006	1.015	mg/L	0.0006	0.06%
Co 238.892†	52914.0	1.018	mg/L	0.0027	1.018	mg/L	0.0027	0.27%
Cr 205.560†	29409.2	1.037	mg/L	0.0048	1.037	mg/L	0.0048	0.47%
Cr 267.716†	94620.6	1.016	mg/L	0.0032	1.016	mg/L	0.0032	0.32%
Cu 324.752†	226312.9	1.080	mg/L	0.0032	1.080	mg/L	0.0032	0.30%
Cu 327.393†	158574.4	1.095	mg/L	0.0030	1.095	mg/L	0.0030	0.27%
Fe 259.939†	117616.5	1.007	mg/L	0.0033	1.007	mg/L	0.0033	0.33%
Fe 238.204†	75086.2	1.010	mg/L	0.0019	1.010	mg/L	0.0019	0.18%
K 766.490†	374335.2	0.8735	mg/L	0.00194	0.8735	mg/L	0.00194	0.22%
Mg 279.077†	18450.9	1.069	mg/L	0.0044	1.069	mg/L	0.0044	0.41%
Mg 285.213†	589853.2	0.9880	mg/L	0.00120	0.9880	mg/L	0.00120	0.12%
Mn 257.610†	463266.4	1.011	mg/L	0.0019	1.011	mg/L	0.0019	0.19%
Mn 259.372†	553744.7	1.014	mg/L	0.0020	1.014	mg/L	0.0020	0.19%
Mo 203.845†	9208.5	1.084	mg/L	0.0119	1.084	mg/L	0.0119	1.10%
Mo 202.031†	19390.9	1.073	mg/L	0.0057	1.073	mg/L	0.0057	0.53%
Na 588.995†	1161300.9	0.8192	mg/L	0.00353	0.8192	mg/L	0.00353	0.43%
Na 589.592†	647220.0	0.7906	mg/L	0.00288	0.7906	mg/L	0.00288	0.36%
Ni 231.604†	33898.6	1.044	mg/L	0.0045	1.044	mg/L	0.0045	0.43%
Ni 221.648†	29459.5	1.055	mg/L	0.0028	1.055	mg/L	0.0028	0.26%
Pb 220.353†	7374.0	1.067	mg/L	0.0082	1.067	mg/L	0.0082	0.77%
Pb 217.000†	1904.0	1.007	mg/L	0.0262	1.007	mg/L	0.0262	2.60%
Sb 206.836†	3429.7	1.050	mg/L	0.0083	1.050	mg/L	0.0083	0.79%

Sb 217.582†	4480.4	1.053 mg/L	0.0049	1.053 mg/L	0.0049	0.47%
Se 196.026†	1147.2	1.041 mg/L	0.0095	1.041 mg/L	0.0095	0.91%
Se 203.985†	645.2	1.048 mg/L	0.0577	1.048 mg/L	0.0577	5.50%
Si 251.611†	29876.1	1.074 mg/L	0.0076	1.074 mg/L	0.0076	0.71%
Si 212.412†	7252.5	1.077 mg/L	0.0073	1.077 mg/L	0.0073	0.68%
Sn 189.927†	6122.5	1.085 mg/L	0.0006	1.085 mg/L	0.0006	0.05%
Sn 235.485†	10052.2	1.046 mg/L	0.0241	1.046 mg/L	0.0241	2.30%
Sr 421.552†	13214143.3	1.012 mg/L	0.0066	1.012 mg/L	0.0066	0.65%
Sr 407.771†	35545411.1	1.010 mg/L	0.0066	1.010 mg/L	0.0066	0.66%
Tl 190.801†	1576.0	1.054 mg/L	0.0107	1.054 mg/L	0.0107	1.02%
Tl 276.787†	2769.8	1.025 mg/L	0.0454	1.025 mg/L	0.0454	4.43%
V 292.402†	129276.5	0.9980 mg/L	0.00224	0.9980 mg/L	0.00224	0.22%
V 290.880†	91745.9	0.9909 mg/L	0.00285	0.9909 mg/L	0.00285	0.29%
Zn 213.857†	100258.3	1.042 mg/L	0.0016	1.042 mg/L	0.0016	0.15%
Zn 206.200†	40176.6	1.063 mg/L	0.0037	1.063 mg/L	0.0037	0.35%
P 213.617†	1939.1	1.084 mg/L	0.0061	1.084 mg/L	0.0061	0.56%
P 214.914†	1704.9	1.094 mg/L	0.0134	1.094 mg/L	0.0134	1.22%
Ti 334.940†	543230.8	1.011 mg/L	0.0031	1.011 mg/L	0.0031	0.30%
Ti 336.121†	525208.7	1.007 mg/L	0.0031	1.007 mg/L	0.0031	0.31%

Method Loaded
Method Name: DW 200.7 9-2013 **Method Last Saved: 8/8/2014 2:10:41 PM**
IEC File: **MSF File: MSF 022113.msf**
Method Description: DW EPA 200.7 022013

Sequence No.: 7 **Autosampler Location: 12**
Sample ID: EXT #1 **Date Collected: 6/10/2014 2:32:26 PM**
Analyst: **Data Type: Reprocessed on 9/8/2014 1:58:45 PM**
Logged In Analyst (Original) : xp
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: EXT #1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	778828.6	1.003	mg/L	0.0113				1.12%
Ag 328.068†	39.6	0.0000	mg/L	0.00030	0.0000	mg/L	0.00030	>999.9%
Ag 338.289†	16.5	0.0002	mg/L	0.00076	0.0002	mg/L	0.00076	325.57%
Al 308.215†	-541.2	0.0141	mg/L	0.00818	0.0141	mg/L	0.00818	57.96%
Al 396.153†	-2190.9	0.0022	mg/L	0.00088	0.0022	mg/L	0.00088	40.30%
As 193.696†	-35.5	-0.0055	mg/L	0.00564	-0.0055	mg/L	0.00564	102.68%
As 188.979†	-27.4	0.0018	mg/L	0.00335	0.0018	mg/L	0.00335	186.49%
B 249.677†	126.1	0.0038	mg/L	0.00096	0.0038	mg/L	0.00096	25.12%
B 249.772†	126.1	0.0038	mg/L	0.00096	0.0038	mg/L	0.00096	25.12%
Ba 493.408†	12203.2	0.0000	mg/L	0.00026	0.0000	mg/L	0.00026	>999.9%
Ba 233.527†	50.3	0.0007	mg/L	0.00009	0.0007	mg/L	0.00009	13.16%
Be 313.042†	2840.2	0.0007	mg/L	0.00007	0.0007	mg/L	0.00007	10.27%
Be 313.107†	2840.2	0.0007	mg/L	0.00007	0.0007	mg/L	0.00007	10.27%
Ca 315.887†	-3452.4	0.0007	mg/L	0.00159	0.0007	mg/L	0.00159	222.99%
Ca 317.933†	-4076.8	0.0019	mg/L	0.00267	0.0019	mg/L	0.00267	143.57%
Cd 226.502†	81.0	0.0005	mg/L	0.00025	0.0005	mg/L	0.00025	54.37%
Cd 228.802†	52.2	0.0007	mg/L	0.00040	0.0007	mg/L	0.00040	53.35%
Co 228.616†	68.0	0.0014	mg/L	0.00030	0.0014	mg/L	0.00030	22.05%
Co 238.892†	19.8	0.0000	mg/L	0.00045	0.0000	mg/L	0.00045	>999.9%
Cr 205.560†	23.5	0.0003	mg/L	0.00049	0.0003	mg/L	0.00049	156.25%
Cr 267.716†	27.5	0.0009	mg/L	0.00015	0.0009	mg/L	0.00015	17.22%
Cu 324.752†	349.6	0.0021	mg/L	0.00042	0.0021	mg/L	0.00042	19.84%
Cu 327.393†	-18.0	0.0017	mg/L	0.00041	0.0017	mg/L	0.00041	23.47%
Fe 259.939†	-17033.3	0.0008	mg/L	0.00034	0.0008	mg/L	0.00034	43.28%
Fe 238.204†	-10855.6	0.0008	mg/L	0.00045	0.0008	mg/L	0.00045	55.78%
K 766.490†	-1583.5	-0.0037	mg/L	0.01455	-0.0037	mg/L	0.01455	393.84%
Mg 279.077†	-346.0	0.0054	mg/L	0.00225	0.0054	mg/L	0.00225	42.01%
Mg 285.213†	-8333.1	0.0059	mg/L	0.00100	0.0059	mg/L	0.00100	16.93%
Mn 257.610†	-1019.2	0.0007	mg/L	0.00005	0.0007	mg/L	0.00005	7.21%
Mn 259.372†	-1324.7	0.0008	mg/L	0.00004	0.0008	mg/L	0.00004	5.61%
Mo 203.845†	33.0	0.0041	mg/L	0.00139	0.0041	mg/L	0.00139	34.00%
Mo 202.031†	20.5	0.0012	mg/L	0.00086	0.0012	mg/L	0.00086	70.27%
Na 588.995†	-36752.5	-0.0259	mg/L	0.00645	-0.0259	mg/L	0.00645	24.87%
Na 589.592†	-26404.0	-0.0323	mg/L	0.00636	-0.0323	mg/L	0.00636	19.71%
Ni 231.604†	-7.3	-0.0002	mg/L	0.00069	-0.0002	mg/L	0.00069	289.54%
Ni 221.648†	-4.2	0.0001	mg/L	0.00051	0.0001	mg/L	0.00051	367.39%

Pb 220.353†	25.6	0.0031 mg/L	0.00289	0.0031 mg/L	0.00289	92.09%
Pb 217.000†	-5.8	-0.0205 mg/L	0.00369	-0.0205 mg/L	0.00369	18.01%
Sb 206.836†	-19.6	-0.0086 mg/L	0.00183	-0.0086 mg/L	0.00183	21.18%
Sb 217.582†	-9.1	-0.0009 mg/L	0.00429	-0.0009 mg/L	0.00429	497.61%
Se 196.026†	-19.0	0.0012 mg/L	0.02019	0.0012 mg/L	0.02019	>999.9%
Se 203.985†	12.1	0.0009 mg/L	0.04399	0.0009 mg/L	0.04399	>999.9%
Si 251.611†	-325.4	-0.0056 mg/L	0.00206	-0.0056 mg/L	0.00206	36.72%
Si 212.412†	-47.5	-0.0115 mg/L	0.01438	-0.0115 mg/L	0.01438	125.08%
Sn 189.927†	15.2	0.0052 mg/L	0.00088	0.0052 mg/L	0.00088	16.76%
Sn 235.485†	-232.6	-0.0067 mg/L	0.00596	-0.0067 mg/L	0.00596	89.49%
Sr 421.552†	8196.1	0.0004 mg/L	0.00012	0.0004 mg/L	0.00012	34.18%
Sr 407.771†	11602.8	0.0004 mg/L	0.00004	0.0004 mg/L	0.00004	11.86%
Tl 190.801†	1.5	-0.0062 mg/L	0.00239	-0.0062 mg/L	0.00239	38.67%
Tl 276.787†	11.7	0.0066 mg/L	0.01473	0.0066 mg/L	0.01473	222.29%
V 292.402†	193.7	0.0009 mg/L	0.00013	0.0009 mg/L	0.00013	14.85%
V 290.880†	-134.6	0.0020 mg/L	0.00069	0.0020 mg/L	0.00069	34.17%
Zn 213.857†	97.8	0.0038 mg/L	0.00105	0.0038 mg/L	0.00105	27.32%
Zn 206.200†	44.1	0.0037 mg/L	0.00099	0.0037 mg/L	0.00099	27.01%
P 213.617†	-237.6	0.0464 mg/L	0.00644	0.0464 mg/L	0.00644	13.89%
P 214.914†	-194.7	0.0555 mg/L	0.01015	0.0555 mg/L	0.01015	18.30%
Ti 334.940†	273.5	0.000 mg/L	0.0002	0.000 mg/L	0.0002	47.76%
Ti 336.121†	232.7	0.001 mg/L	0.0001	0.001 mg/L	0.0001	27.45%

Method Loaded
Method Name: DW 200.7 9-2013 **Method Last Saved: 8/8/2014 2:10:41 PM**
IEC File: **MSF File: MSF 022113.msf**
Method Description: DW EPA 200.7 022013

Sequence No.: 8 **Autosampler Location: 13**
Sample ID: EXT #2 **Date Collected: 6/10/2014 2:34:31 PM**
Analyst: **Data Type: Reprocessed on 9/8/2014 1:58:47 PM**
Logged In Analyst (Original) : xp
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: EXT #2

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	773933.6	0.9964	mg/L	0.03229				3.24%
Ag 328.068†	-21.7	-0.0004	mg/L	0.00041	-0.0004	mg/L	0.00041	107.24%
Ag 338.289†	-4.5	-0.0002	mg/L	0.00054	-0.0002	mg/L	0.00054	341.06%
Al 308.215†	126.9	0.0523	mg/L	0.02756	0.0523	mg/L	0.02756	52.68%
Al 396.153†	-2262.7	0.0018	mg/L	0.00106	0.0018	mg/L	0.00106	57.79%
As 193.696†	-26.5	-0.0005	mg/L	0.00106	-0.0005	mg/L	0.00106	221.39%
As 188.979†	-26.2	0.0026	mg/L	0.00767	0.0026	mg/L	0.00767	297.72%
B 249.677†	-831.9	-0.0118	mg/L	0.00101	-0.0118	mg/L	0.00101	8.52%
B 249.772†	-831.9	-0.0118	mg/L	0.00101	-0.0118	mg/L	0.00101	8.52%
Ba 493.408†	6144.6	-0.0008	mg/L	0.00062	-0.0008	mg/L	0.00062	78.32%
Ba 233.527†	-5.2	-0.0001	mg/L	0.00007	-0.0001	mg/L	0.00007	46.89%
Be 313.042†	-932.2	-0.0001	mg/L	0.00002	-0.0001	mg/L	0.00002	32.77%
Be 313.107†	-932.2	-0.0001	mg/L	0.00002	-0.0001	mg/L	0.00002	32.77%
Ca 315.887†	-3598.7	-0.0016	mg/L	0.00174	-0.0016	mg/L	0.00174	109.66%
Ca 317.933†	-4154.3	0.0012	mg/L	0.00267	0.0012	mg/L	0.00267	216.32%
Cd 226.502†	24.1	-0.0002	mg/L	0.00021	-0.0002	mg/L	0.00021	130.23%
Cd 228.802†	8.0	-0.0001	mg/L	0.00021	-0.0001	mg/L	0.00021	153.35%
Co 228.616†	-85.3	-0.0014	mg/L	0.00030	-0.0014	mg/L	0.00030	21.79%
Co 238.892†	-5.1	-0.0004	mg/L	0.00065	-0.0004	mg/L	0.00065	148.03%
Cr 205.560†	12.4	-0.0001	mg/L	0.00048	-0.0001	mg/L	0.00048	622.15%
Cr 267.716†	-33.5	0.0002	mg/L	0.00030	0.0002	mg/L	0.00030	146.14%
Cu 324.752†	-552.3	0.0012	mg/L	0.00042	0.0012	mg/L	0.00042	35.48%
Cu 327.393†	-262.1	0.0001	mg/L	0.00029	0.0001	mg/L	0.00029	554.70%
Fe 259.939†	-17042.9	0.0007	mg/L	0.00028	0.0007	mg/L	0.00028	39.30%
Fe 238.204†	-10876.8	0.0006	mg/L	0.00016	0.0006	mg/L	0.00016	29.51%
K 766.490†	-7308.6	-0.0171	mg/L	0.00136	-0.0171	mg/L	0.00136	7.95%
Mg 279.077†	-430.7	0.0006	mg/L	0.00230	0.0006	mg/L	0.00230	406.15%
Mg 285.213†	-10523.1	0.0023	mg/L	0.00122	0.0023	mg/L	0.00122	52.25%
Mn 257.610†	-1344.4	0.0000	mg/L	0.00004	0.0000	mg/L	0.00004	173.47%
Mn 259.372†	-1769.1	-0.0000	mg/L	0.00003	-0.0000	mg/L	0.00003	99.39%
Mo 203.845†	21.8	0.0028	mg/L	0.00094	0.0028	mg/L	0.00094	33.80%
Mo 202.031†	12.2	0.0008	mg/L	0.00155	0.0008	mg/L	0.00155	204.48%
Na 588.995†	160670.2	0.1133	mg/L	0.01205	0.1133	mg/L	0.01205	10.63%

Na 589.592†	86112.2	0.1052	mg/L	0.01339	0.1052	mg/L	0.01339 12.73%
Ni 231.604†	-1.5	-0.0001	mg/L	0.00045	-0.0001	mg/L	0.00045 760.01%
Ni 221.648†	-8.8	-0.0000	mg/L	0.00041	-0.0000	mg/L	0.00041 >999.9%
Pb 220.353†	4.0	0.0000	mg/L	0.00086	0.0000	mg/L	0.00086 >999.9%
Pb 217.000†	61.2	0.0156	mg/L	0.01090	0.0156	mg/L	0.01090 69.93%
Sb 206.836†	-6.0	-0.0045	mg/L	0.00395	-0.0045	mg/L	0.00395 88.03%
Sb 217.582†	6.2	0.0027	mg/L	0.00492	0.0027	mg/L	0.00492 179.35%
Se 196.026†	-5.6	0.0131	mg/L	0.01245	0.0131	mg/L	0.01245 95.10%
Se 203.985†	93.0	0.1347	mg/L	0.01200	0.1347	mg/L	0.01200 8.91%
Si 251.611†	-867.8	-0.0250	mg/L	0.01955	-0.0250	mg/L	0.01955 78.20%
Si 212.412†	-209.4	-0.0357	mg/L	0.02062	-0.0357	mg/L	0.02062 57.84%
Sn 189.927†	15.6	0.0053	mg/L	0.00135	0.0053	mg/L	0.00135 25.53%
Sn 235.485†	-121.7	0.0047	mg/L	0.02783	0.0047	mg/L	0.02783 593.24%
Sr 421.552†	-1223.8	-0.0004	mg/L	0.00029	-0.0004	mg/L	0.00029 78.43%
Sr 407.771†	-12412.4	-0.0003	mg/L	0.00012	-0.0003	mg/L	0.00012 37.91%
Tl 190.801†	5.8	-0.0033	mg/L	0.00555	-0.0033	mg/L	0.00555 167.96%
Tl 276.787†	-14.5	-0.0030	mg/L	0.00300	-0.0030	mg/L	0.00300 99.11%
V 292.402†	-21.7	-0.0008	mg/L	0.00011	-0.0008	mg/L	0.00011 13.51%
V 290.880†	-56.0	0.0029	mg/L	0.00005	0.0029	mg/L	0.00005 1.60%
Zn 213.857†	-20.7	0.0026	mg/L	0.00110	0.0026	mg/L	0.00110 42.08%
Zn 206.200†	-29.6	0.0017	mg/L	0.00004	0.0017	mg/L	0.00004 2.38%
P 213.617†	-213.4	0.0579	mg/L	0.00611	0.0579	mg/L	0.00611 10.55%
P 214.914†	-186.6	0.0599	mg/L	0.00820	0.0599	mg/L	0.00820 13.70%
Ti 334.940†	1.8	-0.000	mg/L	0.0001	-0.000	mg/L	0.0001 135.77%
Ti 336.121†	-6.4	0.000	mg/L	0.0001	0.000	mg/L	0.0001 126.06%

Method Loaded
Method Name: DW 200.7 9-2013 **Method Last Saved: 8/8/2014 2:10:41 PM**
IEC File: **MSF File: MSF 022113.msf**
Method Description: DW EPA 200.7 022013

Sequence No.: 9 **Autosampler Location: 17**
Sample ID: 14061143 **Date Collected: 6/10/2014 2:43:39 PM**
Analyst: **Data Type: Reprocessed on 9/8/2014 1:58:49 PM**
Logged In Analyst (Original) : xp
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: 14061143

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	690547.9	0.8890	mg/L	0.00534				0.60%
Ag 328.068†	-1117.1	-0.0074	mg/L	0.00050	-0.0074	mg/L	0.00050	6.83%
Ag 338.289†	397.6	0.0073	mg/L	0.00031	0.0073	mg/L	0.00031	4.18%
Al 308.215†	9359.6	0.5804	mg/L	0.01580	0.5804	mg/L	0.01580	2.72%
Al 396.153†	86812.2	0.4485	mg/L	0.00087	0.4485	mg/L	0.00087	0.19%
As 193.696†	-56.1	-0.0171	mg/L	0.01415	-0.0171	mg/L	0.01415	82.92%
As 188.979†	-23.6	0.0042	mg/L	0.00384	0.0042	mg/L	0.00384	91.75%
B 249.677†	29707.6	0.4869	mg/L	0.01606	0.4869	mg/L	0.01606	3.30%
B 249.772†	29707.6	0.4869	mg/L	0.01606	0.4869	mg/L	0.01606	3.30%
Ba 493.408†	3626537.3	0.4770	mg/L	0.00397	0.4770	mg/L	0.00397	0.83%
Ba 233.527†	36121.6	0.5438	mg/L	0.00896	0.5438	mg/L	0.00896	1.65%
Be 313.042†	-629.1	-0.0000	mg/L	0.00006	-0.0000	mg/L	0.00006	934.76%
Be 313.107†	-629.1	-0.0000	mg/L	0.00006	-0.0000	mg/L	0.00006	934.76%
Ca 315.887†	45766840.0	718.8	mg/L	11.35	718.8	mg/L	11.35	1.58%
Ca 317.933†	78041728.0	631.7	mg/L	6.14	631.7	mg/L	6.14	0.97%
‹turated within auto integration window (code 4)								
Cd 226.502†	-127.3	-0.0018	mg/L	0.00027	-0.0018	mg/L	0.00027	14.80%
Cd 228.802†	-13.7	-0.0006	mg/L	0.00027	-0.0006	mg/L	0.00027	47.87%
Co 228.616†	316.9	0.0058	mg/L	0.00096	0.0058	mg/L	0.00096	16.47%
Co 238.892†	391.0	0.0072	mg/L	0.00013	0.0072	mg/L	0.00013	1.75%
Cr 205.560†	6623.7	0.2331	mg/L	0.00480	0.2331	mg/L	0.00480	2.06%
Cr 267.716†	21299.2	0.2292	mg/L	0.00375	0.2292	mg/L	0.00375	1.64%
Cu 324.752†	83425.5	0.4004	mg/L	0.00141	0.4004	mg/L	0.00141	0.35%
Cu 327.393†	54889.0	0.3801	mg/L	0.00077	0.3801	mg/L	0.00077	0.20%
Fe 259.939†	-13672.8	0.0259	mg/L	0.00126	0.0259	mg/L	0.00126	4.87%
Fe 238.204†	-8784.4	0.0251	mg/L	0.00113	0.0251	mg/L	0.00113	4.48%
K 766.490†	22570091.3	52.67	mg/L	1.054	52.67	mg/L	1.054	2.00%
Mg 279.077†	6549.9	0.3956	mg/L	0.00512	0.3956	mg/L	0.00512	1.29%
Mg 285.213†	295889.1	0.5054	mg/L	0.00329	0.5054	mg/L	0.00329	0.65%
Mn 257.610†	-103.1	0.0027	mg/L	0.00010	0.0027	mg/L	0.00010	3.79%

Mn 259.372†	2176.2	0.0072 mg/L	0.00006	0.0072 mg/L	0.00006	0.86%
Mo 203.845†	7244.6	0.8529 mg/L	0.01269	0.8529 mg/L	0.01269	1.49%
Mo 202.031†	15027.3	0.8314 mg/L	0.01256	0.8314 mg/L	0.01256	1.51%
Na 588.995†	Saturated2					
Na 589.592†	Saturated2					
Ni 231.604†	1833.0	0.0565 mg/L	0.00156	0.0565 mg/L	0.00156	2.76%
Ni 221.648†	-5400.9	-0.1932 mg/L	0.00464	-0.1932 mg/L	0.00464	2.40%
Pb 220.353†	154.8	0.0218 mg/L	0.00492	0.0218 mg/L	0.00492	22.55%
Pb 217.000†	33.3	0.0005 mg/L	0.02809	0.0005 mg/L	0.02809	>999.9%
Sb 206.836†	25.1	0.0051 mg/L	0.00500	0.0051 mg/L	0.00500	98.75%
Sb 217.582†	125.1	0.0306 mg/L	0.00650	0.0306 mg/L	0.00650	21.22%
Se 196.026†	29.9	0.0447 mg/L	0.03320	0.0447 mg/L	0.03320	74.21%
Se 203.985†	57.6	0.0762 mg/L	0.08614	0.0762 mg/L	0.08614	113.00%
Si 251.611†	394037.9	14.09 mg/L	0.074	14.09 mg/L	0.074	0.53%
Si 212.412†	91118.7	13.59 mg/L	0.086	13.59 mg/L	0.086	0.64%
Sn 189.927†	32.8	0.0084 mg/L	0.00244	0.0084 mg/L	0.00244	29.26%
Sn 235.485†	-1319.0	-0.1179 mg/L	0.01495	-0.1179 mg/L	0.01495	12.69%
Sr 421.552†	Saturated2					
Sr 407.771†	Saturated2					
Tl 190.801†	17.9	0.0049 mg/L	0.01696	0.0049 mg/L	0.01696	348.35%
Tl 276.787†	-40.7	-0.0127 mg/L	0.01620	-0.0127 mg/L	0.01620	127.29%
V 292.402†	46819.8	0.3611 mg/L	0.00878	0.3611 mg/L	0.00878	2.43%
V 290.880†	33584.6	0.3649 mg/L	0.00775	0.3649 mg/L	0.00775	2.12%
Zn 213.857†	3256.6	0.0366 mg/L	0.00147	0.0366 mg/L	0.00147	4.01%
Zn 206.200†	643.7	0.0195 mg/L	0.00142	0.0195 mg/L	0.00142	7.26%
P 213.617†	128.4	0.2208 mg/L	0.00805	0.2208 mg/L	0.00805	3.65%
P 214.914†	208.6	0.2759 mg/L	0.00404	0.2759 mg/L	0.00404	1.46%
Ti 334.940†	-1635.2	-0.003 mg/L	0.0004	-0.003 mg/L	0.0004	13.91%
Ti 336.121†	-6083.2	-0.012 mg/L	0.0003	-0.012 mg/L	0.0003	2.22%

Method Loaded
Method Name: DW 200.7 9-2013 **Method Last Saved: 8/8/2014 2:10:41 PM**
IEC File: **MSF File: MSF 022113.msf**
Method Description: DW EPA 200.7 022013

Sequence No.: 10 **Autosampler Location: 18**
Sample ID: 14061144 **Date Collected: 6/10/2014 2:45:53 PM**
Analyst: **Data Type: Reprocessed on 9/8/2014 1:58:50 PM**
Logged In Analyst (Original) : xp
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: 14061144

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	686226.9	0.8835	mg/L	0.01703				1.93%
Ag 328.068†	-1062.4	-0.0070	mg/L	0.00040	-0.0070	mg/L	0.00040	5.69%
Ag 338.289†	473.2	0.0087	mg/L	0.00071	0.0087	mg/L	0.00071	8.18%
Al 308.215†	5373.5	0.3524	mg/L	0.03824	0.3524	mg/L	0.03824	10.85%
Al 396.153†	53238.5	0.2801	mg/L	0.02189	0.2801	mg/L	0.02189	7.81%
As 193.696†	-65.6	-0.0224	mg/L	0.00738	-0.0224	mg/L	0.00738	32.94%
As 188.979†	-9.5	0.0130	mg/L	0.01488	0.0130	mg/L	0.01488	114.67%
B 249.677†	20577.4	0.3378	mg/L	0.00269	0.3378	mg/L	0.00269	0.80%
B 249.772†	20577.4	0.3378	mg/L	0.00269	0.3378	mg/L	0.00269	0.80%
Ba 493.408†	3680908.3	0.4842	mg/L	0.00052	0.4842	mg/L	0.00052	0.11%
Ba 233.527†	36068.4	0.5430	mg/L	0.01253	0.5430	mg/L	0.01253	2.31%
Be 313.042†	-1273.2	-0.0001	mg/L	0.00002	-0.0001	mg/L	0.00002	14.25%
Be 313.107†	-1273.2	-0.0001	mg/L	0.00002	-0.0001	mg/L	0.00002	14.25%
Ca 315.887†	45591368.6	716.0	mg/L	21.94	716.0	mg/L	21.94	3.06%
Ca 317.933†	78067332.3	631.9	mg/L	15.29	631.9	mg/L	15.29	2.42%
Saturated within auto integration window (code 4)								
Cd 226.502†	-156.8	-0.0021	mg/L	0.00022	-0.0021	mg/L	0.00022	10.15%
Cd 228.802†	-4.5	-0.0004	mg/L	0.00053	-0.0004	mg/L	0.00053	135.84%
Co 228.616†	159.1	0.0030	mg/L	0.00136	0.0030	mg/L	0.00136	45.61%
Co 238.892†	276.2	0.0050	mg/L	0.00047	0.0050	mg/L	0.00047	9.44%
Cr 205.560†	7614.6	0.2680	mg/L	0.00742	0.2680	mg/L	0.00742	2.77%
Cr 267.716†	24552.8	0.2641	mg/L	0.00618	0.2641	mg/L	0.00618	2.34%
Cu 324.752†	84960.8	0.4077	mg/L	0.00205	0.4077	mg/L	0.00205	0.50%
Cu 327.393†	55894.0	0.3870	mg/L	0.00271	0.3870	mg/L	0.00271	0.70%
Fe 259.939†	-13459.5	0.0275	mg/L	0.00858	0.0275	mg/L	0.00858	31.18%
Fe 238.204†	-8654.1	0.0267	mg/L	0.00822	0.0267	mg/L	0.00822	30.84%

K 766.490†	20195422.0	47.13	mg/L	1.498	47.13	mg/L	1.498	3.18%
Mg 279.077†	8693.4	0.5170	mg/L	0.01341	0.5170	mg/L	0.01341	2.59%
Mg 285.213†	387163.0	0.6552	mg/L	0.01164	0.6552	mg/L	0.01164	1.78%
Mn 257.610†	167.3	0.0033	mg/L	0.00008	0.0033	mg/L	0.00008	2.46%
Mn 259.372†	1233.0	0.0054	mg/L	0.00007	0.0054	mg/L	0.00007	1.26%
Mo 203.845†	3191.2	0.3758	mg/L	0.00647	0.3758	mg/L	0.00647	1.72%
Mo 202.031†	6537.6	0.3617	mg/L	0.00342	0.3617	mg/L	0.00342	0.95%
Na 588.995†	Saturated2							
Na 589.592†	Saturated2							
Ni 231.604†	1550.6	0.0478	mg/L	0.00109	0.0478	mg/L	0.00109	2.29%
Ni 221.648†	-8306.8	-0.2972	mg/L	0.00391	-0.2972	mg/L	0.00391	1.32%
Pb 220.353†	116.5	0.0163	mg/L	0.00698	0.0163	mg/L	0.00698	42.80%
Pb 217.000†	70.2	0.0204	mg/L	0.01360	0.0204	mg/L	0.01360	66.62%
Sb 206.836†	41.3	0.0100	mg/L	0.00468	0.0100	mg/L	0.00468	46.54%
Sb 217.582†	215.8	0.0519	mg/L	0.00188	0.0519	mg/L	0.00188	3.63%
Se 196.026†	14.8	0.0313	mg/L	0.02535	0.0313	mg/L	0.02535	80.93%
Se 203.985†	59.1	0.0787	mg/L	0.06221	0.0787	mg/L	0.06221	79.04%
Si 251.611†	540389.2	19.32	mg/L	0.095	19.32	mg/L	0.095	0.49%
Si 212.412†	124531.1	18.57	mg/L	0.091	18.57	mg/L	0.091	0.49%
Sn 189.927†	54.0	0.0121	mg/L	0.00268	0.0121	mg/L	0.00268	22.21%
Sn 235.485†	-993.1	-0.0845	mg/L	0.01911	-0.0845	mg/L	0.01911	22.61%
Sr 421.552†	Saturated2							
Sr 407.771†	Saturated2							
Tl 190.801†	26.9	0.0109	mg/L	0.00718	0.0109	mg/L	0.00718	65.69%
Tl 276.787†	-78.9	-0.0268	mg/L	0.02158	-0.0268	mg/L	0.02158	80.44%
V 292.402†	18797.6	0.1446	mg/L	0.00487	0.1446	mg/L	0.00487	3.37%
V 290.880†	13086.6	0.1443	mg/L	0.00493	0.1443	mg/L	0.00493	3.42%
Zn 213.857†	4262.0	0.0470	mg/L	0.00263	0.0470	mg/L	0.00263	5.59%
Zn 206.200†	976.7	0.0283	mg/L	0.00270	0.0283	mg/L	0.00270	9.53%
P 213.617†	146.9	0.2296	mg/L	0.00146	0.2296	mg/L	0.00146	0.64%
P 214.914†	258.0	0.3029	mg/L	0.02182	0.3029	mg/L	0.02182	7.20%
Ti 334.940†	-2736.1	-0.005	mg/L	0.0002	-0.005	mg/L	0.0002	3.03%
Ti 336.121†	-6808.7	-0.013	mg/L	0.0006	-0.013	mg/L	0.0006	4.90%

Method Loaded
Method Name: DW 200.7 9-2013 **Method Last Saved: 8/8/2014 2:10:41 PM**
IEC File: **MSF File: MSF 022113.msf**
Method Description: DW EPA 200.7 022013

Sequence No.: 11 **Autosampler Location: 19**
Sample ID: 14061145 **Date Collected: 6/10/2014 2:48:07 PM**
Analyst: **Data Type: Reprocessed on 9/8/2014 1:58:52 PM**
Logged In Analyst (Original) : xp
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: 14061145

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	658594.3	0.8479	mg/L	0.00319				0.38%
Ag 328.068†	-1051.6	-0.0070	mg/L	0.00058	-0.0070	mg/L	0.00058	8.31%
Ag 338.289†	497.0	0.0092	mg/L	0.00070	0.0092	mg/L	0.00070	7.64%
Al 308.215†	2220.8	0.1721	mg/L	0.01429	0.1721	mg/L	0.01429	8.30%
Al 396.153†	18659.5	0.1067	mg/L	0.00159	0.1067	mg/L	0.00159	1.49%
As 193.696†	-41.9	-0.0091	mg/L	0.01059	-0.0091	mg/L	0.01059	116.43%
As 188.979†	-21.5	0.0055	mg/L	0.00240	0.0055	mg/L	0.00240	43.58%
B 249.677†	18649.3	0.3063	mg/L	0.00614	0.3063	mg/L	0.00614	2.00%
B 249.772†	18649.3	0.3063	mg/L	0.00614	0.3063	mg/L	0.00614	2.00%
Ba 493.408†	3497307.2	0.4600	mg/L	0.00117	0.4600	mg/L	0.00117	0.25%
Ba 233.527†	34328.6	0.5168	mg/L	0.01319	0.5168	mg/L	0.01319	2.55%
Be 313.042†	-1273.7	-0.0001	mg/L	0.00001	-0.0001	mg/L	0.00001	7.09%
Be 313.107†	-1273.7	-0.0001	mg/L	0.00001	-0.0001	mg/L	0.00001	7.09%
Ca 315.887†	46841963.5	735.7	mg/L	3.13	735.7	mg/L	3.13	0.42%
Ca 317.933†	80549714.4	652.0	mg/L	3.01	652.0	mg/L	3.01	0.46%
Saturated within auto integration window (code 4)								
Cd 226.502†	-130.4	-0.0018	mg/L	0.00026	-0.0018	mg/L	0.00026	14.09%
Cd 228.802†	-4.7	-0.0004	mg/L	0.00060	-0.0004	mg/L	0.00060	152.38%
Co 228.616†	287.5	0.0053	mg/L	0.00019	0.0053	mg/L	0.00019	3.49%
Co 238.892†	332.6	0.0061	mg/L	0.00038	0.0061	mg/L	0.00038	6.35%
Cr 205.560†	7238.9	0.2547	mg/L	0.00614	0.2547	mg/L	0.00614	2.41%
Cr 267.716†	23279.3	0.2504	mg/L	0.00507	0.2504	mg/L	0.00507	2.03%

Cu 324.752†	104720.9	0.5017 mg/L	0.00402	0.5017 mg/L	0.00402	0.80%
Cu 327.393†	69107.5	0.4781 mg/L	0.00530	0.4781 mg/L	0.00530	1.11%
Fe 259.939†	-14576.5	0.0192 mg/L	0.00410	0.0192 mg/L	0.00410	21.38%
Fe 238.204†	-9379.2	0.0181 mg/L	0.00366	0.0181 mg/L	0.00366	20.18%
K 766.490†	20784885.4	48.50 mg/L	0.434	48.50 mg/L	0.434	0.89%
Mg 279.077†	51625.2	2.947 mg/L	0.0101	2.947 mg/L	0.0101	0.34%
Mg 285.213†	2219215.3	3.663 mg/L	0.0180	3.663 mg/L	0.0180	0.49%
Mn 257.610†	-243.8	0.0024 mg/L	0.00015	0.0024 mg/L	0.00015	6.32%
Mn 259.372†	331.5	0.0038 mg/L	0.00025	0.0038 mg/L	0.00025	6.59%
Mo 203.845†	2039.4	0.2403 mg/L	0.00379	0.2403 mg/L	0.00379	1.58%
Mo 202.031†	4064.8	0.2249 mg/L	0.00520	0.2249 mg/L	0.00520	2.31%
Na 588.995†	Saturated2					
Na 589.592†	Saturated2					
Ni 231.604†	1904.0	0.0586 mg/L	0.00208	0.0586 mg/L	0.00208	3.54%
Ni 221.648†	-10270.9	-0.3676 mg/L	0.00081	-0.3676 mg/L	0.00081	0.22%
Pb 220.353†	144.1	0.0203 mg/L	0.00570	0.0203 mg/L	0.00570	28.10%
Pb 217.000†	-10.7	-0.0231 mg/L	0.01093	-0.0231 mg/L	0.01093	47.27%
Sb 206.836†	91.4	0.0254 mg/L	0.00974	0.0254 mg/L	0.00974	38.29%
Sb 217.582†	254.8	0.0611 mg/L	0.01017	0.0611 mg/L	0.01017	16.66%
Se 196.026†	5.7	0.0231 mg/L	0.00572	0.0231 mg/L	0.00572	24.71%
Se 203.985†	-8.3	-0.0328 mg/L	0.08903	-0.0328 mg/L	0.08903	271.54%
Si 251.611†	663794.2	23.73 mg/L	0.016	23.73 mg/L	0.016	0.07%
Si 212.412†	152788.3	22.79 mg/L	0.051	22.79 mg/L	0.051	0.22%
Sn 189.927†	7.3	0.0038 mg/L	0.00815	0.0038 mg/L	0.00815	211.83%
Sn 235.485†	-1089.4	-0.0944 mg/L	0.01605	-0.0944 mg/L	0.01605	17.01%
Sr 421.552†	Saturated2					
Sr 407.771†	Saturated2					
Tl 190.801†	25.4	0.0099 mg/L	0.00541	0.0099 mg/L	0.00541	54.77%
Tl 276.787†	-214.6	-0.0769 mg/L	0.01857	-0.0769 mg/L	0.01857	24.15%
V 292.402†	21204.3	0.1632 mg/L	0.00474	0.1632 mg/L	0.00474	2.90%
V 290.880†	14809.9	0.1629 mg/L	0.00621	0.1629 mg/L	0.00621	3.81%
Zn 213.857†	2029.0	0.0239 mg/L	0.00132	0.0239 mg/L	0.00132	5.55%
Zn 206.200†	149,8	0.0065 mg/L	0.00069	0.0065 mg/L	0.00069	10.67%
P 213.617†	120.3	0.2170 mg/L	0.01990	0.2170 mg/L	0.01990	9.17%
P 214.914†	237.4	0.2916 mg/L	0.01542	0.2916 mg/L	0.01542	5.29%
Ti 334.940†	-2599.4	-0.005 mg/L	0.0001	-0.005 mg/L	0.0001	2.65%
Ti 336.121†	-7148.3	-0.014 mg/L	0.0005	-0.014 mg/L	0.0005	3.40%

Method Loaded
Method Name: DW 200.7 9-2013 **Method Last Saved: 8/8/2014 2:10:41 PM**
IEC File: **MSF File: MSF 022113.msf**
Method Description: DW EPA 200.7 022013

Sequence No.: 12 **Autosampler Location: 1**
Sample ID: CCB **Date Collected: 6/10/2014 2:52:36 PM**
Analyst: **Data Type: Reprocessed on 9/8/2014 1:58:53 PM**
Logged In Analyst (Original) : xp
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	749705.1	0.9652	mg/L	0.01335				1.38%
Ag 328.068†	-44.0	-0.0005	mg/L	0.00008	-0.0005	mg/L	0.00008	14.28%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Ag 338.289†	-3.8	-0.0001	mg/L	0.00140	-0.0001	mg/L	0.00140	979.63%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	372.4	0.0664	mg/L	0.02181	0.0664	mg/L	0.02181	32.87%
QC value within limits for Al 308.215 Recovery = Not calculated								
Al 396.153†	1379.4	0.0201	mg/L	0.00091	0.0201	mg/L	0.00091	4.54%
QC value within limits for Al 396.153 Recovery = Not calculated								
As 193.696†	-51.7	-0.0146	mg/L	0.00614	-0.0146	mg/L	0.00614	42.06%
QC value within limits for As 193.696 Recovery = Not calculated								
As 188.979†	-41.4	-0.0069	mg/L	0.00299	-0.0069	mg/L	0.00299	43.14%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	7117.5	0.1180	mg/L	0.00451	0.1180	mg/L	0.00451	3.82%
QC value greater than the upper limit for B 249.677 Recovery = Not calculated								
B 249.772†	7117.5	0.1180	mg/L	0.00451	0.1180	mg/L	0.00451	3.82%
QC value greater than the upper limit for B 249.772 Recovery = Not calculated								
Ba 493.408†	14520.6	0.0003	mg/L	0.00025	0.0003	mg/L	0.00025	79.37%

	QC value within limits for Ba 493.408 Recovery = Not calculated						
Ba 233.527†	29.2	0.0004 mg/L	0.00017	0.0004 mg/L	0.00017	44.58%	
	QC value within limits for Ba 233.527 Recovery = Not calculated						
Be 313.042†	-365.6	0.0000 mg/L	0.00001	0.0000 mg/L	0.00001	17.73%	
	QC value within limits for Be 313.042 Recovery = Not calculated						
Be 313.107†	-365.6	0.0000 mg/L	0.00001	0.0000 mg/L	0.00001	17.73%	
	QC value within limits for Be 313.107 Recovery = Not calculated						
Ca 315.887†	58235.2	0.9695 mg/L	0.00712	0.9695 mg/L	0.00712	0.73%	
	QC value greater than the upper limit for Ca 315.887 Recovery = Not calculated						
Ca 317.933†	116732.6	0.9797 mg/L	0.00640	0.9797 mg/L	0.00640	0.65%	
	QC value greater than the upper limit for Ca 317.933 Recovery = Not calculated						
Cd 226.502†	104.9	0.0007 mg/L	0.00008	0.0007 mg/L	0.00008	10.83%	
	QC value within limits for Cd 226.502 Recovery = Not calculated						
Cd 228.802†	51.3	0.0007 mg/L	0.00026	0.0007 mg/L	0.00026	36.24%	
	QC value within limits for Cd 228.802 Recovery = Not calculated						
Co 228.616†	7.7	0.0003 mg/L	0.00082	0.0003 mg/L	0.00082	300.56%	
	QC value within limits for Co 228.616 Recovery = Not calculated						
Co 238.892†	14.9	-0.0001 mg/L	0.00001	-0.0001 mg/L	0.00001	12.68%	
	QC value within limits for Co 238.892 Recovery = Not calculated						
Cr 205.560†	21.3	0.0002 mg/L	0.00055	0.0002 mg/L	0.00055	232.28%	
	QC value within limits for Cr 205.560 Recovery = Not calculated						
Cr 267.716†	-0.6	0.0006 mg/L	0.00029	0.0006 mg/L	0.00029	51.79%	
	QC value within limits for Cr 267.716 Recovery = Not calculated						
Cu 324.752†	-266.0	0.0025 mg/L	0.00039	0.0025 mg/L	0.00039	15.50%	
	QC value within limits for Cu 324.752 Recovery = Not calculated						
Cu 327.393†	73.4	0.0024 mg/L	0.00043	0.0024 mg/L	0.00043	18.06%	
	QC value within limits for Cu 327.393 Recovery = Not calculated						
Fe 259.939†	10470.0	0.2064 mg/L	0.00483	0.2064 mg/L	0.00483	2.34%	
	QC value greater than the upper limit for Fe 259.939 Recovery = Not calculated						
Fe 238.204†	6616.4	0.2060 mg/L	0.00499	0.2060 mg/L	0.00499	2.42%	
	QC value greater than the upper limit for Fe 238.204 Recovery = Not calculated						
K 766.490†	71261.8	0.1663 mg/L	0.00665	0.1663 mg/L	0.00665	4.00%	
	QC value greater than the upper limit for K 766.490 Recovery = Not calculated						
Mg 279.077†	395.7	0.0473 mg/L	0.00269	0.0473 mg/L	0.00269	5.68%	
	QC value within limits for Mg 279.077 Recovery = Not calculated						
Mg 285.213†	16492.6	0.0467 mg/L	0.00210	0.0467 mg/L	0.00210	4.49%	
	QC value within limits for Mg 285.213 Recovery = Not calculated						
Mn 257.610†	1872.9	0.0070 mg/L	0.00027	0.0070 mg/L	0.00027	3.79%	
	QC value within limits for Mn 257.610 Recovery = Not calculated						
Mn 259.372†	2375.9	0.0075 mg/L	0.00025	0.0075 mg/L	0.00025	3.36%	
	QC value within limits for Mn 259.372 Recovery = Not calculated						
Mo 203.845†	289.9	0.0343 mg/L	0.00098	0.0343 mg/L	0.00098	2.86%	
	QC value within limits for Mo 203.845 Recovery = Not calculated						
Mo 202.031†	550.1	0.0305 mg/L	0.00187	0.0305 mg/L	0.00187	6.14%	
	QC value within limits for Mo 202.031 Recovery = Not calculated						
Na 588.995†	3248167.0	2.291 mg/L	0.0613	2.291 mg/L	0.0613	2.68%	
	QC value greater than the upper limit for Na 588.995 Recovery = Not calculated						
Na 589.592†	1853999.2	2.265 mg/L	0.0624	2.265 mg/L	0.0624	2.75%	
	QC value greater than the upper limit for Na 589.592 Recovery = Not calculated						
Ni 231.604†	3.6	0.0001 mg/L	0.00088	0.0001 mg/L	0.00088	902.36%	
	QC value within limits for Ni 231.604 Recovery = Not calculated						
Ni 221.648†	-18.5	-0.0004 mg/L	0.00030	-0.0004 mg/L	0.00030	79.27%	
	QC value within limits for Ni 221.648 Recovery = Not calculated						
Pb 220.353†	38.2	0.0050 mg/L	0.00190	0.0050 mg/L	0.00190	38.35%	
	QC value within limits for Pb 220.353 Recovery = Not calculated						
Pb 217.000†	26.4	-0.0032 mg/L	0.01295	-0.0032 mg/L	0.01295	405.96%	
	QC value within limits for Pb 217.000 Recovery = Not calculated						
Sb 206.836†	-4.4	-0.0040 mg/L	0.00327	-0.0040 mg/L	0.00327	82.00%	
	QC value within limits for Sb 206.836 Recovery = Not calculated						
Sb 217.582†	-5.6	-0.0000 mg/L	0.00272	-0.0000 mg/L	0.00272	>999.9%	
	QC value within limits for Sb 217.582 Recovery = Not calculated						
Se 196.026†	-18.2	0.0019 mg/L	0.01330	0.0019 mg/L	0.01330	714.58%	
	QC value within limits for Se 196.026 Recovery = Not calculated						
Se 203.985†	-9.9	-0.0354 mg/L	0.01306	-0.0354 mg/L	0.01306	36.88%	
	QC value within limits for Se 203.985 Recovery = Not calculated						
Si 251.611†	957.4	0.0402 mg/L	0.00427	0.0402 mg/L	0.00427	10.61%	
	QC value within limits for Si 251.611 Recovery = Not calculated						
Si 212.412†	315.1	0.0426 mg/L	0.01413	0.0426 mg/L	0.01413	33.17%	
	QC value within limits for Si 212.412 Recovery = Not calculated						
Sn 189.927†	-12.4	0.0004 mg/L	0.00150	0.0004 mg/L	0.00150	409.93%	
	QC value within limits for Sn 189.927 Recovery = Not calculated						
Sn 235.485†	-91.4	0.0078 mg/L	0.01134	0.0078 mg/L	0.01134	145.46%	
	QC value within limits for Sn 235.485 Recovery = Not calculated						
Sr 421.552†	34814.5	0.0024 mg/L	0.00004	0.0024 mg/L	0.00004	1.87%	

QC value within limits for Sr 421.552 Recovery = Not calculated

Sr 407.771†	79559.6	0.0023 mg/L	0.00005	0.0023 mg/L	0.00005	2.32%

QC value within limits for Sr 407.771 Recovery = Not calculated

Tl 190.801†	5.5	-0.0035 mg/L	0.00459	-0.0035 mg/L	0.00459	132.48%

QC value within limits for Tl 190.801 Recovery = Not calculated

Tl 276.787†	-3.8	0.0009 mg/L	0.00363	0.0009 mg/L	0.00363	392.80%

QC value within limits for Tl 276.787 Recovery = Not calculated

V 292.402†	1625.2	0.0119 mg/L	0.00072	0.0119 mg/L	0.00072	6.04%

QC value within limits for V 292.402 Recovery = Not calculated

V 290.880†	991.9	0.0141 mg/L	0.00088	0.0141 mg/L	0.00088	6.23%

QC value within limits for V 290.880 Recovery = Not calculated

Zn 213.857†	11718.9	0.1243 mg/L	0.00464	0.1243 mg/L	0.00464	3.73%

QC value greater than the upper limit for Zn 213.857 Recovery = Not calculated

Zn 206.200†	4524.5	0.1220 mg/L	0.00501	0.1220 mg/L	0.00501	4.11%

QC value greater than the upper limit for Zn 206.200 Recovery = Not calculated

P 213.617†	-338.8	-0.0018 mg/L	0.00560	-0.0018 mg/L	0.00560	307.26%

QC value within limits for P 213.617 Recovery = Not calculated

P 214.914†	-257.1	0.0214 mg/L	0.01229	0.0214 mg/L	0.01229	57.54%

QC value within limits for P 214.914 Recovery = Not calculated

Ti 334.940†	81.1	0.000 mg/L	0.0001	0.000 mg/L	0.0001	345.08%

QC value within limits for Ti 334.940 Recovery = Not calculated

Ti 336.121†	-71.8	-0.000 mg/L	0.0002	-0.000 mg/L	0.0002	527.15%

QC value within limits for Ti 336.121 Recovery = Not calculated

QC Failed. Continue with analysis.

Method Loaded
Method Name: DW 200.7 9-2013 **Method Last Saved: 8/8/2014 2:10:41 PM**
IEC File: **MSF File: MSF 022113.msf**
Method Description: DW EPA 200.7 022013

Sequence No.: 13 **Autosampler Location: 6**
Sample ID: CCV **Date Collected: 6/10/2014 2:54:40 PM**
Analyst: **Data Type: Reprocessed on 9/8/2014 1:58:55 PM**
Logged In Analyst (Original) : xp
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	726153.1	0.9349	mg/L	0.01367				1.46%
Ag 328.068†	30499.2	0.1943	mg/L	0.00473	0.1943	mg/L	0.00473	2.43%
QC value within limits for Ag 328.068 Recovery = 97.13%								
Ag 338.289†	10231.1	0.1900	mg/L	0.00447	0.1900	mg/L	0.00447	2.35%
QC value within limits for Ag 338.289 Recovery = 95.02%								
Al 308.215†	33026.3	1.934	mg/L	0.0469	1.934	mg/L	0.0469	2.43%
QC value within limits for Al 308.215 Recovery = 96.71%								
Al 396.153†	386469.4	1.951	mg/L	0.0504	1.951	mg/L	0.0504	2.58%
QC value within limits for Al 396.153 Recovery = 97.55%								
As 193.696†	3469.6	1.960	mg/L	0.0475	1.960	mg/L	0.0475	2.42%
QC value within limits for As 193.696 Recovery = 97.98%								
As 188.979†	3099.0	1.955	mg/L	0.0257	1.955	mg/L	0.0257	1.32%
QC value within limits for As 188.979 Recovery = 97.76%								
B 249.677†	124855.2	2.041	mg/L	0.0450	2.041	mg/L	0.0450	2.20%
QC value within limits for B 249.677 Recovery = 102.04%								
B 249.772†	124855.2	2.041	mg/L	0.0450	2.041	mg/L	0.0450	2.20%
QC value within limits for B 249.772 Recovery = 102.04%								
Ba 493.408†	15042256.6	1.984	mg/L	0.0486	1.984	mg/L	0.0486	2.45%
QC value within limits for Ba 493.408 Recovery = 99.19%								
Ba 233.527†	128913.7	1.941	mg/L	0.0477	1.941	mg/L	0.0477	2.46%
QC value within limits for Ba 233.527 Recovery = 97.05%								
Be 313.042†	10485777.3	1.997	mg/L	0.0518	1.997	mg/L	0.0518	2.59%
QC value within limits for Be 313.042 Recovery = 99.84%								
Be 313.107†	10485777.3	1.997	mg/L	0.0518	1.997	mg/L	0.0518	2.59%
QC value within limits for Be 313.107 Recovery = 99.84%								
Ca 315.887†	131782.5	2.124	mg/L	0.0590	2.124	mg/L	0.0590	2.78%
QC value within limits for Ca 315.887 Recovery = 106.22%								
Ca 317.933†	257220.7	2.117	mg/L	0.0577	2.117	mg/L	0.0577	2.73%
QC value within limits for Ca 317.933 Recovery = 105.84%								
Cd 226.502†	179450.5	1.960	mg/L	0.0477	1.960	mg/L	0.0477	2.43%
QC value within limits for Cd 226.502 Recovery = 98.00%								

Cd 228.802†	97985.0	1.962 mg/L	0.0475	1.962 mg/L	0.0475 2.42%
QC value within limits for Cd 228.802 Recovery = 98.08%					
Co 228.616†	106837.7	1.918 mg/L	0.0426	1.918 mg/L	0.0426 2.22%
QC value within limits for Co 228.616 Recovery = 95.89%					
Co 238.892†	102028.3	1.962 mg/L	0.0454	1.962 mg/L	0.0454 2.31%
QC value within limits for Co 238.892 Recovery = 98.12%					
Cr 205.560†	55819.4	1.968 mg/L	0.0471	1.968 mg/L	0.0471 2.39%
QC value within limits for Cr 205.560 Recovery = 98.39%					
Cr 267.716†	182683.8	1.961 mg/L	0.0493	1.961 mg/L	0.0493 2.52%
QC value within limits for Cr 267.716 Recovery = 98.06%					
Cu 324.752†	412024.5	1.963 mg/L	0.0470	1.963 mg/L	0.0470 2.40%
QC value within limits for Cu 324.752 Recovery = 98.13%					
Cu 327.393†	288322.2	1.989 mg/L	0.0435	1.989 mg/L	0.0435 2.19%
QC value within limits for Cu 327.393 Recovery = 99.43%					
Fe 259.939†	251945.7	2.011 mg/L	0.0531	2.011 mg/L	0.0531 2.64%
QC value within limits for Fe 259.939 Recovery = 100.56%					
Fe 238.204†	159177.7	1.998 mg/L	0.0561	1.998 mg/L	0.0561 2.81%
QC value within limits for Fe 238.204 Recovery = 99.88%					
K 766.490†	845648.7	1.973 mg/L	0.0517	1.973 mg/L	0.0517 2.62%
QC value within limits for K 766.490 Recovery = 98.67%					
Mg 279.077†	34391.1	1.971 mg/L	0.0428	1.971 mg/L	0.0428 2.17%
QC value within limits for Mg 279.077 Recovery = 98.57%					
Mg 285.213†	1161618.0	1.927 mg/L	0.0489	1.927 mg/L	0.0489 2.54%
QC value within limits for Mg 285.213 Recovery = 96.34%					
Mn 257.610†	890435.6	1.941 mg/L	0.0482	1.941 mg/L	0.0482 2.48%
QC value within limits for Mn 257.610 Recovery = 97.05%					
Mn 259.372†	1071584.9	1.960 mg/L	0.0488	1.960 mg/L	0.0488 2.49%
QC value within limits for Mn 259.372 Recovery = 97.99%					
Mo 203.845†	17024.4	2.004 mg/L	0.0415	2.004 mg/L	0.0415 2.07%
QC value within limits for Mo 203.845 Recovery = 100.20%					
Mo 202.031†	35761.8	1.978 mg/L	0.0325	1.978 mg/L	0.0325 1.64%
QC value within limits for Mo 202.031 Recovery = 98.92%					
Na 588.995†	4412439.4	3.113 mg/L	0.0909	3.113 mg/L	0.0909 2.92%
QC value greater than the upper limit for Na 588.995 Recovery = 155.63%					
Na 589.592†	2511884.3	3.068 mg/L	0.0917	3.068 mg/L	0.0917 2.99%
QC value greater than the upper limit for Na 589.592 Recovery = 153.42%					
Ni 231.604†	64135.5	1.976 mg/L	0.0447	1.976 mg/L	0.0447 2.26%
QC value within limits for Ni 231.604 Recovery = 98.80%					
Ni 221.648†	54778.2	1.962 mg/L	0.0448	1.962 mg/L	0.0448 2.28%
QC value within limits for Ni 221.648 Recovery = 98.12%					
Pb 220.353†	13755.1	1.991 mg/L	0.0461	1.991 mg/L	0.0461 2.32%
QC value within limits for Pb 220.353 Recovery = 99.57%					
Pb 217.000†	3598.3	1.919 mg/L	0.0484	1.919 mg/L	0.0484 2.52%
QC value within limits for Pb 217.000 Recovery = 95.96%					
Sb 206.836†	6210.5	1.904 mg/L	0.0215	1.904 mg/L	0.0215 1.13%
QC value within limits for Sb 206.836 Recovery = 95.21%					
Sb 217.582†	8147.8	1.914 mg/L	0.0271	1.914 mg/L	0.0271 1.42%
QC value within limits for Sb 217.582 Recovery = 95.68%					
Se 196.026†	2144.5	1.931 mg/L	0.0660	1.931 mg/L	0.0660 3.42%
QC value within limits for Se 196.026 Recovery = 96.54%					
Se 203.985†	1170.5	1.916 mg/L	0.0254	1.916 mg/L	0.0254 1.33%
QC value within limits for Se 203.985 Recovery = 95.79%					
Si 251.611†	64046.0	2.295 mg/L	0.0387	2.295 mg/L	0.0387 1.69%
QC value greater than the upper limit for Si 251.611 Recovery = 114.75%					
Si 212.412†	15387.8	2.291 mg/L	0.0276	2.291 mg/L	0.0276 1.20%
QC value greater than the upper limit for Si 212.412 Recovery = 114.54%					
Sn 189.927†	10985.5	1.945 mg/L	0.0279	1.945 mg/L	0.0279 1.43%
QC value within limits for Sn 189.927 Recovery = 97.25%					
Sn 235.485†	18201.4	1.881 mg/L	0.0533	1.881 mg/L	0.0533 2.83%
QC value within limits for Sn 235.485 Recovery = 94.03%					
Sr 421.552†	25336401.1	1.940 mg/L	0.0505	1.940 mg/L	0.0505 2.60%
QC value within limits for Sr 421.552 Recovery = 96.99%					
Sr 407.771†	Saturated2				
Unable to evaluate QC.					
Tl 190.801†	2925.2	1.962 mg/L	0.0400	1.962 mg/L	0.0400 2.04%
QC value within limits for Tl 190.801 Recovery = 98.10%					
Tl 276.787†	5242.3	1.938 mg/L	0.0239	1.938 mg/L	0.0239 1.23%
QC value within limits for Tl 276.787 Recovery = 96.88%					
V 292.402†	253816.7	1.960 mg/L	0.0484	1.960 mg/L	0.0484 2.47%
QC value within limits for V 292.402 Recovery = 98.00%					
V 290.880†	180232.6	1.943 mg/L	0.0468	1.943 mg/L	0.0468 2.41%
QC value within limits for V 290.880 Recovery = 97.16%					
Zn 213.857†	196718.0	2.042 mg/L	0.0480	2.042 mg/L	0.0480 2.35%
QC value within limits for Zn 213.857 Recovery = 102.10%					

Zn 206.200†	77947.0	2.061 mg/L	0.0493	2.061 mg/L	0.0493	2.39%
QC value within limits for Zn 206.200 Recovery = 103.04%						
P 213.617†	3730.5	1.937 mg/L	0.0532	1.937 mg/L	0.0532	2.74%
QC value within limits for P 213.617 Recovery = 96.86%						
P 214.914†	3319.9	1.976 mg/L	0.0182	1.976 mg/L	0.0182	0.92%
QC value within limits for P 214.914 Recovery = 98.81%						
Ti 334.940†	1012987.3	1.886 mg/L	0.0459	1.886 mg/L	0.0459	2.43%
QC value within limits for Ti 334.940 Recovery = 94.30%						
Ti 336.121†	979898.8	1.878 mg/L	0.0466	1.878 mg/L	0.0466	2.48%
QC value within limits for Ti 336.121 Recovery = 93.91%						

QC Failed. Continue with analysis.

REAM & HAAGER ENVIRONMENTAL LABORATORY INC.
Testing For a Better Tomorrow Since 1960

P.O. Box 706, 179 West Broadway, Dover, OH 44622
TEL: (330) 343-3711 FAX: (330) 343-9858
Email: rhlab@rhlab.us
Ohio EPA Chemical Certification # 4162
Ohio EPA Bacteria Certification # 893

- Certificate of Analysis -

for

US TECHNOLOGY/MS
700 INDUSTRIAL PARKWAY
PO BOX 507
YAZOO CITY, MS 39194

Project Comments: *** RUSH ***

Final Report
Report Date: 6/11/2014
Report Number: 21413-0
Chain of Custody #: 119402
Project Name: HYDROMAX

Lab ID: 14061143 **Date Sampled:** 6/3/2014 10:44:00AM
Sample Type: Soil **Date Received:** 6/5/2014
Your Sample ID: C9-5DAY **Collection:** COMP

62152

Method	Analyte	Result	Units	MDL/PQL	Analysis Date	Analyst
SW846_1311/6010	TCLP Cadmium	<0.01	mg/L	0.01	06/10/14	CC
	TCLP Chromium	0.23	mg/L	0.01	06/10/14	CC
	TCLP Lead	0.02	mg/L	0.01	06/10/14	CC

Lab ID: 14061144 **Date Sampled:** 6/3/2014 11:01:00AM
Sample Type: Soil **Date Received:** 6/5/2014
Your Sample ID: D-10-3DAY **Collection:** COMP

62157

Method	Analyte	Result	Units	MDL/PQL	Analysis Date	Analyst
SW846_1311/6010	TCLP Cadmium	<0.01	mg/L	0.01	06/10/14	CC
	TCLP Chromium	0.27	mg/L	0.01	06/10/14	CC
	TCLP Lead	0.02	mg/L	0.01	06/10/14	CC

Lab ID: 14061145 **Date Sampled:** 6/3/2014 11:36:00AM
Sample Type: Soil **Date Received:** 6/5/2014
Your Sample ID: E5-19DAY **Collection:** COMP

Method	Analyte	Result	Units	MDL/PQL	Analysis Date	Analyst

Client: US TECHNOLOGY/MS

Final Report

Report Date: 6/11/2014

Report Number: 21413-0

Lab ID: 14061145

Sample Type: Soil

Your Sample ID: E5-19DAY 62158

Date Sampled: 6/3/2014 11:36:00AM

Date Received: 6/5/2014

Collection: COMP

Method	Analyte	Result	Units	MDL/PQL	Analysis Date	Analyst
SW846_1311/6010	TCLP Cadmium	<0.01	mg/L	0.01	06/10/14	CC
	TCLP Chromium	0.26	mg/L	0.01	06/10/14	CC
	TCLP Lead	0.02	mg/L	0.01	06/10/14	CC

QA/QC Manager

Ream & Haager Laboratory
TCLP Bench Sheet

Sample Info					Pre-Test			TCLP Extraction									
Date Ext. Started	Sample Lab #	Sample MATRIX	Tumbler	Pos. #	Sample Weight	Intial pH	pH After HCL and Heating	Sample Weight	Ext. Fluid #	Ext. Fluid Batch #	Ext. Fluid pH	Vol. of Ext. Fluid (ml)	Time On Tumbler (min.)	Time Off Tumbler (min.)	Date Ext. ENDED	pH After Filtration	Initials
6/6/14	BLK EXT #1	Liquid	LLM	1	—	—	—	—	1	053014	4.94	2000	1:00pm	8:30AM	6/7/14	—	RF
	BLK EXT #2	〃		2	—	—	—	—	2	060614	2.88						
	140611 43	Solid		3	5.01	10.85	3.72	100.4	1	053014	4.94						
	140611 44			4	5.05	10.93	2.28	100.1	1								
	140611 45			5	5.02	10.54	2.11	100.0	1								
	140611 46			6	6.06	8.11	5.51	100.5	2	060614	2.88						
	140611 47			7	6.04	7.79	4.40	100.7	1	053014	4.94						
	140611 48			8	5.05	7.64	4.01	100.4	1								
	140611 49			9	5.09	7.41	4.40	100.1	1								
—	140611 49D	—	—	10	5.03	7.43	4.39	100.3	1	—	—	—	—	—	—	—	—
6/9/14	BLK EXT #1	Liquid	LLM	1	—	—	—	—	1	060914	4.90	2000	3:30pm	10:00AM	6/10/14	—	RF
	BLK EXT #2	〃		2	—	—	—	—	2	060614	2.88						
	140611 50	Solid		3	5.02	7.57	4.23	100.1	1	060914	4.90						
	140611 51			4	6.04	6.71	3.51	100.3	1	〃	〃						
	140611 52			5	5.07	7.92	5.46	100.5	2	060614	2.88						
	140611 53			6	5.10	7.96	4.48	100.7	1	060914	4.90						
	140611 54			7	5.09	7.63	4.32	100.4	1								
	140611 55			8	5.02	7.45	4.08	100.1	1								
	140611 56			9	5.05	7.35	4.11	100.3	1								
—	140611 56D	—	—	10	5.07	7.56	4.13	100.5	1	—	—	—	—	—	—	—	—

Tumblers

(LLM) Lars Lande Manufacturing Inc. Model # 10VRE - Designed to produce 30 rotations per minute. Positions 01 through 10

TCLP Metals

Method: EPA 1311 (1992)

Method Number 10118806

	Result Units	Assigned Value	Accept. Window	Z	Evaluation
Extraction Fluid [4] 1311 / SPE005-225G - Lot LRAA2408	1	1.00	1.00 to 1.10		Acceptable
	Evaluation Criteria - 6				*Evaluation Parameter* - a:1, b:0, c:0, d:0

Method: EPA 6010B (1996)

Method Number 10155609

	Result Units	Assigned Value	Accept. Window	Z	Evaluation
Antimony, Sb [4] 1005 / SPE005-225G - Lot LRAA2408	0 mg/L	0.00	0.00 to 0.00		Acceptable
	Evaluation Criteria - 5				*Evaluation Parameter* - deviations:3
Arsenic, As [4] 1010 / SPE005-225G - Lot LRAA2408	2.04 mg/L	1.83	0.277 to 2.99	0.91	Acceptable
	Evaluation Criteria - 5				*Evaluation Parameter* - deviations:3
Barium, Ba [4] 1015 / SPE005-225G - Lot LRAA2408	5.17 mg/L	4.43	2.75 to 6.43	1.32	Acceptable
	Evaluation Criteria - 5				*Evaluation Parameter* - deviations:3
Beryllium, Be [4] 1020 / SPE005-225G - Lot LRAA2408	0 mg/L	0.00	0.0 to 0.0		Acceptable
	Evaluation Criteria - 5				*Evaluation Parameter* - deviations:3
Cadmium, Cd [4] 1030 / SPE005-225G - Lot LRAA2408	24.8 mg/L	21.7	14.2 to 29.2	1.24	Acceptable
	Evaluation Criteria - 5				*Evaluation Parameter* - deviations:3
Chromium, Cr (total) [4] 1040 / SPE005-225G - Lot LRAA2408	4.01 mg/L	3.56	1.70 to 5.42	0.72	Acceptable
	Evaluation Criteria - 5				*Evaluation Parameter* - deviations:3
Cobalt, Co [4] 1050 / SPE005-225G - Lot LRAA2408	0 mg/L	0.00	0.0 to 0.0		Acceptable
	Evaluation Criteria - 5				*Evaluation Parameter* - deviations:3
Copper, Cu [4] 1055 / SPE005-225G - Lot LRAA2408	0 mg/L	0.00	0.0 to 0.0		Acceptable
	Evaluation Criteria - 5				*Evaluation Parameter* - deviations:3
Lead, Pb [4] 1075 / SPE005-225G - Lot LRAA2408	34.1 mg/L	38.0	21.0 to 55.0	-0.69	Acceptable
	Evaluation Criteria - 5				*Evaluation Parameter* - deviations:3
Molybdenum, Mo [4] 1100 / SPE005-225G - Lot LRAA2408	0 mg/L	0.00	0.0 to 0.0		Acceptable
	Evaluation Criteria - 5				*Evaluation Parameter* - deviations:3
Nickel, Ni [4] 1105 / SPE005-225G - Lot LRAA2408	0 mg/L	0.00	0.0 to 0.0		Acceptable
	Evaluation Criteria - 5				*Evaluation Parameter* - deviations:3
Selenium, Se [4] 1140 / SPE005-225G - Lot LRAA2408	2.80 mg/L	2.05	0.999 to 3.11	2.14	Acceptable
	Evaluation Criteria - 5				*Evaluation Parameter* - deviations:3
Silver, Ag [4] 1150 / SPE005-225G - Lot LRAA2408	5.58 mg/L	4.33	0.501 to 11.6	0.52	Acceptable
	Evaluation Criteria - 5				*Evaluation Parameter* - deviations:3
Thallium, Tl [4] 1165 / SPE005-225G - Lot LRAA2408	0 mg/L	0.00	0.0 to 0.0		Acceptable
	Evaluation Criteria - 5				*Evaluation Parameter* - deviations:3
Vanadium, V [4] 1185 / SPE005-225G - Lot LRAA2408	0 mg/L	0.00	0.0 to 0.0		Acceptable
	Evaluation Criteria - 5				*Evaluation Parameter* - deviations:3
Zinc, Zn [4] 1190 / SPE005-225G - Lot LRAA2408	0.644 mg/L	0.342	0.0420 to 0.973	1.44	Acceptable
	Evaluation Criteria - 5				*Evaluation Parameter* - deviations:3

Toxicity Characteristic Leaching Procedure for Metals by SW846-1311

Scope and Application:

The TCLP extraction procedure is designed to determine the mobility of organic and inorganic analytes present in liquid, solid, and multiphasic wastes. TCLP extractions are performed on samples containing or possibly containing high concentrations of hazardous compounds.

Reagents/Apparatus:

1) Sample tumblers capable of end-over-end rotations (30 RMP +/- 2).
   a) 1- Lars Lande Manufacturing 10 position tumbler. (10VRE)
   b) 1- Associated Design and Manufacturing Company 2 position tumbler. (3740-2-BRE)
   c) 1- Associated Design and Manufacturing Company 6 position tumbler. (3740-6-BRE)
2) Nalgene Fluorinated High-Density Polyethylene Bottles for extraction. (2124-0005)
3) Millipore Hazardous Waste Filtration System. (YT30142HW)
4) Fisher Brand 142mm TCLP borosilicate glass fiber filters with 0.7 micron pore size.
5) VWR SR40C pH meter.
6) Mettler PM3000 Balance
7) Beakers or Erlenmeyer Flasks, glass, 250ml capacity.
8) Watchglass, appropriate diameter to cover beakers or Erlenmeyer flasks.
9) Magnetic stirrer with stir bars.
10) Heating Plate capable of 50 degrees C.
11) D.I. Water free of contaminates.
12) Hydrochloric Acid (1N), HCL, ACS grade, purchased commercially.
13) Nitric Acid (1N), HNO3, made from ACS grade or equivalent.
14) Sodium Hydroxide (1N), NaOH, ACS grade or equivalent, purchased commercially.
15) Glacial Acetic Acid, CH3CH2OOH, ACS reagent grade, purchased commercially.
16) TCLP Log Book.
17) 1 liter plastic bottles for extract collection.
18) Nitrogen Gas for filtration device.
19) 9.5mm Sieve
20) Extraction Fluid #1 and #2
   a) Extraction Fluid #1 – mix in a 20 liter Nalgene carboy, add 114mL of glacial acetic acid, 1286mL of 1N sodium hydroxide (or 129mL of 10N sodium hydroxide), and dilute to volume of 20 liters with D.I. water. pH of the extraction fluid should be checked before use. pH of extraction fluid #1 should be 4.38 to 4.98.
   b) Extraction Fluid #2 – mix in a 20 liter Nalgene carboy, add 114mL of glacial acetic acid and dilute to volume of 20 liters with D.I. water. pH of the extraction fluid should be check before use. pH of extraction fluid #2 should be 2.83 to 2.93.

Procedure:

1) Determine the percent solid of the sample. This is only determined on samples that are liquid or multiphasic.
   A) Prewiegh the filter and the container that will receive the filtrate. If 100% solid skip to step 3 of the procedure.
   B) Assemble the filter holder and prepare the filter by placing the filter on the filter holders screen located on the stand of the holder, proceed by acid washing the filter (rinse the filter once with 1N HNO3 and rinse 3 times with D.I. water. Then place the cylinder body of the filter holder on top of the filter and screen.
   C) Weigh out 100 grams of the sample and record the weight in the TCLP Log Book.
   D) Pour off any liquid portion of the sample possible to be added to the filtration device.
   E) Transfer your weighed liquid and solid phase samples to the filter holder and spread evenly inside of the cylinder.
   F) Place cap of the filter holder on top of the apparatus and tighten down the screw handles to prevent sample form leaking out of the filter holder.
   G) Apply the nitrogen gas slowly between 1 – 10 psi. After 2 minutes if no gas passes through the filter slowly increase the gas pressure in increments of 10 psi to a maximum of 50 psi allowing 2 minute intervals between the increases. When the pressurizing gas begins to move through the filter, or when liquid flow ceases at 50 psi within any 2 minute interval, stop the filtration.
   H) The material remaining in the filter holder is your solid phase of the waste (includes any paints, oils or other liquid substances that can not pass through the filter at a pressure of 50 psi), and the filtrate is defined as the liquid phase.
   I) Determine the weight of the liquid phase by subtracting the weight of the container used to collect the filtrate (step 1-A) from the total weight of the container and liquid phase sample. Determine the weight of the solid phase by subtracting the weight of the liquid phase from the total sample weight (step 1-C).
   J) Record the liquid and solid phase weights and calculate the percent solids as follows:
   % Solids = Weight of Solid Phase (step 1-I) / Total weight of sample (step 1-C) times 100
   K) If the percent solid is equal to or greater than 0.5%, then proceed to step 2 of the procedure to determine if particle size reduction is required. If the percent solid is determined to be less than 0.5% then proceed to step 4-H of the procedure.

2) Determine if the waste requires particle size reduction.

   A) Take solid portion of waste and place in 9.5mm sieve. If the waste passes through the sieve no reduction size is required. If the waste does not pass through the sieve, prepare the sample by crushing, cutting, or grinding the waste until it is able to pass through the 9.5mm sieve.

3) Determination of extraction fluid.

   A) Weigh out a 5-gram portion of the solid phase sample into a 250ml beaker or Erlenmeyer flask.

   B) Add 96.5ml of D.I. water to the beaker, a stir bar is then added, then covered with a watch glass, and stirred vigorously for 5-minutes using the magnetic stirrer. Measure and record the pH. If the pH is <5.0 use extraction fluid #1 and proceed to step 4-H of the procedure.

   C) If the pH is >5.0, add 3.5ml of 1N HCL, slurry briefly, cover with a watch glass, heat to 50 degrees C, and hold at 50 degrees C for 10-minutes.

   D) Let solution cool to room temperature and record the pH. If the pH is <5.0, use extraction fluid #1. If the pH is >5.0 then use extraction fluid #2.

4) Preparing sample for extraction.

   A) If waste yields no liquid when subject to the pressure filtration (step 1 of procedure), then weigh out 100-grams of waste and proceed to step 4-C of the procedure.

   B) If waste contains liquid then the liquid phased collected as a filtrate earlier in this method shall be analyzed separately or added to the filtrate from the solid phase extraction then analyzed. The solid phase will be placed in the extraction vessel along with the filter used to collect the liquid phase filtrate.

   C) Determine the amount of extraction fluid to add to the extractor vessel as follows: Weight (amount) of Extraction Fluid = 20 X % solid (step 1-J) X weight of waste filtered (step 1-C) divided by 100.

   D) Slowly add the appropriate amount from the last step to the extraction vessel. Close the extraction bottle tightly use Teflon tape if necessary to prevent leaks. Secure in tumbler and rotate for 18 +/- 2 hours.

   E) Following the 18 +/- 2 hour extraction, separate the material in the extraction vessel into its liquid component by using the filter holder device and a new glass fiber filter (be sure to acid wash the filter with 1 rinse of 1N HNO3 and 3 rinses of D.I. water).

   F) If the waste contained no initial liquid phase proceed to step 4-H of the procedure.

   G) If compatible, combine the filtered liquid resulting from step 4-E of the procedure with the initial liquid phase of the waste collected in step 1-H of the procedure. This combined liquid is considered the TCLP extract. If unable to combine analyze separately and combine mathematically.

H) Following the collection of the TCLP extract the pH should be measured and recorded. After the pH is recorded preserve the TCLP extract with HNO3 to a pH of <2. Sample is now ready for preparation and analysis by the appropriate analytical methods.

Quality Control:

1) Blanks – are prepared as samples and ran with every batch or 20 samples or every time new extraction fluid is made.

2) LCS/LCS duplicates – are spikes that are ran with every batch (per 20 samples if more than 20 a day). Samples are spiked with 2mL's of 100ppm stock standard solutions. This data is used to create precision. The control samples are prepared after the TCLP extraction but before the acidification of the TCLP extract.

Reported To:

All TCLP Prep samples are reported in TCLP Prep logbook, which is given to the quality control manager. Results are reviewed by the analyst and entered into the LIMS system. Final reports are reviewed by the QA/QC.

US Tech/Ream & Haager Data Review

- What we received:
  - Ream & Haager (R&H) TCLP Standard Operating Procedure (SOP)
  - Performance Testing results for TCLP Analysis
  - TCLP Sample Preparation Worksheet
  - Data Report for 3 samples* using Inductively Coupled Plasma – Atomic Emission Spectrometry (ICP-AES)
  - Data Report for 3 samples* using Inductively Coupled Plasma – Mass Spectrometry (ICP-MS)
  - Final Report for 3 samples*

*All three reports were based on the same three samples. These samples were assigned sample numbers at Ream & Haager (14061143, 14061144, and 14061145). We were able to correlate these numbers with our own sample numbers using the sample description (C9, D10, and E5). The MDEQ Laboratory numbers for samples matching this description are 62152, 62157, and 62158.

- What it said:
  - TCLP SOP – Standard, no real deviation from the original method 1311
  - Performance Testing Results – They passed.
  - TCLP Sample Preparation Worksheet – During sample preparation, R&H had pH values that were different from our results. Due to method requirements, this caused them to use a different extraction fluid.

MDEQ Sample #	Initial pH	Final pH	Ext. Fluid#	R&H Sample #	Initial pH	Final pH	Ext. Fluid #
62152	11	10	2	14061143	10.85	3.72	1
62157	12	10	2	14061144	10.93	2.28	1
62158	11	10	2	14061145	10.54	2.11	1

  - Data Report for 3 samples using ICP-AES – Quality control passed, no obvious problems
  - Data Report for 3 samples using ICP-MS – Quality control passed, no obvious problems. They looked at multiple Cd isotopes, but there was variation between them. When we did the same thing all isotopes had the same values.
  - Final Reports - Our results are comparable except for Cadmium

MDEQ Sample #	Cadmium (mg/L)	Chromium (mg/L)	Lead (mg/L)	R&H Sample #	Cadmium (mg/L)	Chromium (mg/L)	Lead (mg/L)
62152	3.45	0.33	0.02	14061143	<0.01	0.23	0.02
62157	4.09	0.31	0.04	14061144	<0.01	0.27	0.02
62158	2.73	0.24	0.01	14061145	<0.01	0.26	0.02

Scarbrough
10/10/14

US Tech/Ream & Haager Data Review

Summary:

In my opinion the only significant difference between the two laboratory analyses is the sample preparation. Based on the final pH value, the laboratory must choose one of two extraction fluids. The two extraction fluid options, as defined by the method, have different pH values (#1 – 4.93, #2 – 2.88). This could be the cause for the Cadmium discrepancy because our lab used the more acidic extraction fluid. More acidity would increase the leaching process. Note however that this did not seem to cause any major difference between the other two metal's results. It is unclear what might cause the difference in pH values.

Scarbrough
10/10/14

BURNSIDE ENVIRONMENTAL GROUP

February 16, 2015

To: Bruce Pasfield
Alston and Bird LLP

From: Theodore O. Meiggs, Ph.D. and Felix Flechas, P.E.
Burnside Environmental Group, LLC

Subject: Evaluation of Laboratory Analyses Conducted on US Technologies Treated Spent Blast Media

Introduction:

On December 11, 2014, Alston and Bird LLP and U.S. Technologies (UST) requested Burnside Environmental Group ("BEG") to evaluate analytical testing that had been conducted on U.S. Technology ("UST") treated spent blast media (SBM). The evaluation focused on laboratory analyses used to test for hazardous constituents in UST treated SBM that was located at the former Hydromex facility in Yazoo City, Mississippi and at the Canton, Mississippi municipal landfill. The testing that was reviewed was conducted by the Mississippi Department of Environmental Quality (MDEQ) and by contract laboratories working on behalf of US Environmental Protection Agency (EPA), and UST. The documents provided to BEG for this review are listed in the reference section of this memo and consisted of EPA's report of its June 3, 2014 inspection of the former Hydromex facility and Canton Municipal Landfill and documents associated with the collection and analysis of split samples taken during that inspection. The primary reviewer of this material was Dr. Theodore O. Meiggs of BEG whose resume is attached to this memo. Dr. Meiggs was requested to evaluate these documents and provide conclusions as to the accuracy of the laboratory results as reported by all three laboratories.

EPA's June 3, 2014 Inspection

The EPA Site Inspection Report dated Dec. 4, 2014 described an unannounced inspection on June 3, 2014 of the former Hydromex facility and the collection of treated SBM samples by an EPA led field team. The team collected split samples of the treated SBM from the Hydromex site and from the Canton Municipal Landfill near Yazoo City, MS where some of the treated SBM had been sent for disposal. The report also described the analysis of these samples by an EPA contract laboratory in Knoxville, TN, and the conclusions that EPA had drawn from the analytical results. Additional documents showed that two other laboratories performed analysis of the split samples collected by the EPA lead team and summaries of their results were also evaluated. These two other sets of analyses were performed on behalf of the Mississippi

Department of Environmental Quality at its laboratory facility in Pearl, MS and on behalf of UST at a contract laboratory by the name of Ream & Haager (R&H) Environmental Laboratory, Inc. in Dover, OH.

Attachment C to the EPA Inspection Report describes the "Sampling collection and analysis at the Hydromex facility," which was prepared by Booz Allen Hamilton (Booz Allen), the RCRA Corrective Action Support contractor for EPA, who carried out the actual field work of collecting samples, splitting the samples and sending them to a contract laboratory for analysis. Booz Allen was tasked with collecting treated SBM at the Hydromex site and at the Canton Sanitary Landfill where treated SBM was deposited and sending these samples to the contract lab for analysis for TCLP metals and polychlorinated biphenyls (PCBs).

Summary & Conclusions:

The UST contract laboratory reported that the levels of contaminants in the treated SBM were below regulated levels just as previous sampling had shown. This lab provided TCLP bench sheets, acid digestions bench sheets, and instrument files of their calibrations, sample analyses and quality control. A detailed review of these files supports their conclusions that concentrations of TCLP cadmium were <0.01 mg/L, TCLP chromium were ~0.25 mg/L, and TCLP lead were 0.02 mg/L in the treated SBM extracts.

Testing of splits of these samples and other grab samples by the EPA contract laboratory and the MDEQ laboratory appeared to show another story, particularly for leachable cadmium as shown in **Table 1**. These labs reported highly variable levels of TCLP cadmium up to 4.4 mg/l.

A detailed evaluation of the reports and laboratory documents received to date including the test results from the three laboratories led to the following conclusions:

1. The only contaminant in the treated SBM of regulatory concern is TCLP cadmium. All other contaminants were well below regulatory levels for all the samples tested. The test results for TCLP cadmium are not comparable between the three different labs. The UST lab consistently observes very low levels of TCLP cadmium, the MDEQ lab consistently finds very high levels that are two to four times the regulatory limit of 1 mg/L, and the EPA contract lab observes both high and very low levels of TCLP cadmium even for duplicate samples. Based on the data reviewed, these results cannot all be reconciled. A detailed evaluation of the documents received and methods used was performed. Unfortunately, the cause(s) of these inconsistencies could not be determined from the documents received.

2. Only the R & H lab included documentation that described their TCLP extractions in detail sufficient to effectively review these procedures. This information is usually maintained in a TCLP Extraction Logbook and copies of the logs or analyst's logbooks that pertain to these samples from the other two labs would need to be reviewed for BEG to complete its evaluation. For example, BEG would need to know the physical

description of the samples, was there any free liquid, were the particulates solidified, the initial pH of the samples; the results of the pre-test to determine which extraction fluid was used, how long was the sample extracted, was the extract clear or cloudy after filtration through a glass filter, and what was the pH of the final extract before acidification with nitric acid. All of these factors can impact the extraction and the properties of the final extract. These are especially important in this case since the SBM treatment process consists of the addition of Portland cement and water to stabilize the low levels of metals in the SBM. Cement is primarily calcium oxide and when mixed with water forms calcium hydroxide. This will create a high pH in the treated SBM materials and lead to the absorption of carbon dioxide from the air to form insoluble calcium carbonates and silicates. This will "stabilize" the metals in treated SBM particles by locking them into a relatively insoluble matrix. This combination of a high pH and relatively insoluble matrix will reduce the ability of acetic acid to extract metals during the TCLP evaluation.

3. The analytical test results for TCLP cadmium were highly variable between the labs and even within the EPA contract lab, which means that the testing was highly variable or the samples were highly variable or both. If, the samples were highly variable in the amount of cadmium actually present in separate aliquots of treated SBM, then by definition, the individual samples were not "Representative" of the SBM, which is a requirement for determining if a material is Hazardous or not. If the material matrix is highly variable then more samples would have to be collected and tested to reduce the standard deviation of the results. All of the laboratory results should be considered together to be representative of the material. If the analytical testing was highly variable, or the extractions were highly variable, then the accuracy of the results is reduced, possibly to the point where the results are meaningless.

4. The EPA team collected and tested two field duplicates. These field duplicates were apparently not split with the UST or MDEQ contract labs. The results for these duplicates showed high variability in the results for TCLP cadmium with a relative percent difference of 200%. This gives a Relative Standard Deviation (RSD) of over 100%. This variability for cadmium results was also evident when comparing testing between the labs. Of the 14 samples split between labs, 8 samples were reported as <0.5mg/L for TCLP cadmium or less by one lab while another lab reported values two to four times the regulated limit of 1.0 mg/L. Method 1311, Section 9.2.1 refers to Table 6 for the precision of the TCLP test for metals between 12 different labs. The Table shows an average RSD of 72% for cadmium between the 12 labs. The precision within a single lab should be much less, but for the EPA contract lab it was not. Method 1311 (9.2.1) also states that the multi-lab study "indicates that a single analysis of a waste may not be adequate for waste characterization and identification requirements." The EPA contract lab single lab data are definitely more variable than the multi-lab study which underscores that they are definitely not "enforcement quality data" and are not adequate for waste characterization and identification requirements.

5. Many of the test results reported by the EPA and MDEQ were within 20% of the regulatory limit for cadmium or greater. TCLP Method 1311 requires that the "Method of Standard Additions" described in Section 8.4 be used for this situation especially when low recoveries are also observed. None of the labs used the Method of Standard Additions to substantiate their test results and eliminate possible interference effects.

   The UST contract lab, R & H, was the only lab for which sufficient documentation of their TCLP and analytical procedures allowed a reasonable evaluation of the reliability of their determinations. In addition, R & H tested the acetic acid extracts they obtained from the TCLP procedure by both Inductively Coupled Plasma– Atomic Emission Spectroscopy (ICP-AES) and Inductively Coupled Plasma – Mass Spectroscopy (ICP-MS) to measure the amount of metals in the acid digested extracts. They used EPA Methods 200.7 and 200.8 and they obtained essentially the same results by both procedures.

   Neither the EPA contract lab nor the MDEQ lab provided sufficient documentation to allow a thorough evaluation of their test results. The MDEQ lab reported using ICP-MS to test for metals according to EPA Method 200.8. Whereas the EPA contract lab reported using ICP-AES to test for metals according to EPA Method 6010 C. Both Methods 200.7 and 200.8 are designed for waters and wastewaters. Method 6010 C is designed to test waste materials and soils. The TCLP Method 1311 does not require a specific method for measuring TCLP metals, so all three methods are acceptable for measuring metals in TCLP extracts as long as the instrument calibration and potential interferences and other QC factors are properly addressed. The TCLP procedure specifies in 7.2.14 that an acid digestion must be performed on the extract to demonstrate that a waste is not hazardous. However, acid digestion is not required to show that a waste is hazardous if testing of the extract directly verifies that the metal is above the regulatory limit. Both methods 200.7 and 200.8 describe a similar acid digestion procedure that uses nitric and hydrochloric acids. However, neither the EPA contract lab nor the MDEQ lab reports included documentation to indicate if this or another acid digestion procedure was performed when analyzing the treated SBM. The results should be reported as Total Recoverable Metals from the TCLP extract in mg/L.

6. All three labs reported their findings as TCLP metals in mg/L. The results should be similar between the labs since all three labs state that they are using acceptable analytical methods that are the same or similar. However, the results for split samples are not the same or even similar between the labs for TCLP cadmium. Consequently, we are not sure that that all three labs are applying the same meaning for the term TCLP metals. For example, the term normally refers to the amount of specific metals in an acetic acid extract of a sample of waste material that was obtained by applying the TCLP Method 1311 exactly as written. However, this term could also refer to the total amount of one of the metals regulated under the TCLP regulation that is present is a sample of waste

material. This would be an improper use of the term, but it could be one explanation for the differences reported by the three labs. To show that TCLP extractions were actually performed and performed properly on the June 3 samples, additional lab records would be needed.

In summary, there are large differences between the results reported by the three laboratories and there is no clear way to reconcile those differences on what should have been nearly identical split samples. There are many unresolved laboratory issues (as mentioned above) with respect to the representativeness of the samples and documentation to show how the EPA and MDEQ laboratories conducted the TCLP testing. Since at least one lab's analysis showed cadmium levels below the TCLP threshold, it would seem that the test results as a whole are too variable to prove that the treated SBM was in fact "Hazardous Waste". A more thorough evaluation of the procedures used by these laboratories may explain and/or eliminate the observed variability of the TCLP test results for metals so that a more reliable characterization of the treated SBM and the treatment process can be made. BEG recommends that UST seek additional documentation from these laboratories and that it have additional dialogue with the regulatory agencies to see if these differences in analysis can be resolved.

Evaluation:

The samples collected during the EPA Site Investigation were described as containing fine-grained plastic, glass or aluminum oxide abrasive material that had been used to remove paint, rust and other coatings from the surfaces of airplanes, tanks, and other equipment. This Spent Blast Media was reused multiple times and contained particles of the coatings that were removed from surfaces during cleaning operations. The metals therein were to be stabilized by mixing with powdered Portland cement (10% by weight) and water (26% by weight) at the Hydromex site and allowed to dry in piles on the site. When the treated SBM material had fully dried or hydrated for at least 48 hours, the piles were to be tested for TCLP metals. Composite samples were to be collected from each stockpile of treated SBM and tested by a contract lab in Ohio. Once the testing showed that the stockpile had met the Landfill's criteria of < 1 mg/L cadmium, < 5 mg/L chromium, and < 5 mg/L lead then the treated/stabilized material was to be trucked to the Canton Municipal Landfill for disposal.

According to the Booz Allen report, the EPA led contractor sampling team collected scoop samples of treated SBM material from three locations in each of the Piles C-9, D-10, and E-5 at the Hydromex site. The scoop samples from each pile were placed in a plastic tub and thoroughly mixed to produce a composite sample for each pile. Portions of each composite sample were placed into appropriate containers, and shipped under chain of custody procedures to each of the labs. Furthermore, the samplers provided an additional portion for use as a matrix sample by the EPA contract laboratory. Grab samples were collected from two other piles of treated SBM at the Hydromex site, the East and West piles, and grab samples were also collected from three piles of treated SBM that had already been delivered to the Canton Sanitary Landfill in Canton, MS. These grab samples were split between the MDEQ and EPA and shipped to their respective labs. The grab samples were not provided to UST. According to the EPA report, all of these treated SBM piles had previously been sampled by UST and tested by their contract lab

in Ohio. All prior samples were reported to be below the regulatory levels for TCLP metals. The results of analysis for TCLP leachable cadmium for the June 3, 2014 sampling from all three laboratories are shown in **Table 1**.

UST Test Results:

Testing of the three composite samples collected by the EPA lead team on June 3, 2014 (C-9, D-10, and E-5 piles) was performed by UST's contract laboratory in Dover, OH. This lab provided a Final Report that described the use of SW-846 Methods 1311 (TCLP) and 6010 (ICP-AES) and gave results as TCLP Cadmium, TCLP Chromium, and TCLP Lead in mg/L. In addition, the laboratory provided information on the TCLP extractions and acid digestions of the three composite samples collected on June 3, 2014. Copies of their TCLP extraction log showed that the three composite samples had an initial pH of 10.54 to 10.93. The pre-test showed that the pH after HCl addition and heating ranged from 2.11 to 3.72. Consequently, all three samples were extracted with Extraction Fluid #1 with a pH of 4.94 for approximately 19.5 hrs. The extracts were filtered through a 0.7 micron glass fiber filter and acidified with nitric acid to a pH of < 2.0. Several days later the extracts were digested with concentrated nitric acid and microwave heating according to EPA Method 3015. Following acid digestions, the samples were analyzed by ICP-AES according to EPA Method 200.7. In order to provide increased confidence in these analytical results, the lab took the additional step of analyzing the extracts a second time utilizing ICP-MS according to EPA Method 200.8. Both methods produced the same analytical results.

The TCLP information above is especially important in this case since the SBM treatment process consisted of the addition of Portland cement and water to stabilize the low levels of metals in the SBM. Cement is primarily calcium oxide which when mixed with water forms calcium hydroxide. This will create a high pH in the treated SBM materials and lead to the absorption of carbon dioxide from the air to form insoluble calcium carbonates and silicates. This treatment is intended to "stabilize" the metals in paint particles by locking them into a relatively insoluble matrix. This combination of a high pH and relatively insoluble matrix will reduce the ability of acetic acid to extract metals during the TCLP evaluation. Pictures of the treated SBM and the treated SBM piles in the Booz Allen report show that the treated SBM was granular, containing fine particulates and not solidified chunks of treated SBM. It looked to be easily mixed and fairly uniform in texture. The sampling team mixed the composite samples with a plastic scoop so it is doubtful if the samples would require further particle size reduction prior to TCLP extraction. From the photo in the report, it appeared that the material was fairly uniform in composition as well.

The UST lab's Final Report stated they used Method 6010 which is an ICP-AES procedure, but they actually used EPA Methods 200.7 and 200.8, which are the ICP-AES and ICP-MS procedures for measuring the concentrations of leachable cadmium and other metals in aqueous samples. We know this because they provided copies of the print-outs of the instrument readings taken during calibration and sample analyses. The lab typically reports their TCLP data this way because Methods 1311 and 6010 are hazardous waste methods described in SW-846. However, this is not a problem since the instrumental parts of Methods 6010 and 200.7 are very similar, the quality control requirements for Method 200.7 are somewhat more rigorous than those for

Method 6010, and the lab is testing aqueous extracts not hazardous wastes or soils. The instrument print-outs show that proper calibrations, blanks, and continuing calibrations were performed for both analytical procedures. In addition, a duplicate sample was analyzed for cadmium with a RSD of 10% at the 0.014 mg/L level which is the type of precision that one would expect from a well-run analysis. All in all, the R & H lab used acceptable procedures and good laboratory practices during the analysis of the UST treated waste samples. Their analyses showed that the levels of contaminants in the treated SBMs were all below regulated levels. In particular, leachable cadmium was found to be <0.01 mg/L in all three composite treated SBM samples.

The EPA report stated that previous testing by the UST contracted laboratory had also showed that the treated SBM materials were below regulated levels for TCLP metals for Hazardous Wastes and were allowable for land disposal at the Municipal Facility. We have seen summaries of some of the prior testing results provided by the R & H lab, and they confirm this statement.

US EPA Test Results:

According to the Booz Allen report, the purpose of the EPA lead sample collection and analysis was to determine if any of the treated SBM materials contained leachable toxic metals and/or polychlorinated biphenyls at levels that exceeded the regulatory limits for hazardous waste and/ or the Land Disposal regulations. EPA did not report any of the details of their TCLP extractions nor many of the details of the analytical procedures they used to quantitate the extracts. A note in the laboratory QA/QC Report merely states that TCLP extractions were performed. A review of the EPA Contract Laboratory Program procedure for TCLP extractions requires that certain information should be recorded, but does not require that information to be reported. Consequently, each lab should maintain a logbook or other record that documents the required information for each TCLP extraction performed.

The EPA contract laboratory used EPA Method 6010 C which uses ICP-AES to measure the amounts of leachable cadmium in the samples and these results are summarized in **Table 1**. Their results for leachable cadmium were highly variable. There were two field duplicates in this batch of samples (H-SW-4 & -10 were duplicates from the Hydromex site and H-SW-12 & -20 were duplicates from the Canton site). They did not match well. One sample was reported as <0.5 mg/L and the other as 3.3 mg/L; the other pair were <0.5 mg/L and 4.4 mg/L. These equal a relative percent difference of 200%, and a Relative Standard Deviation (RSD) of over 100%. This level of variability with cadmium results was also evident with testing between the three labs. In fact, it was just as bad. Of the 14 different samples tested, 8 of them were reported as <0.5 mg/L or less by one lab while another lab reported values 2 to 4 times the regulated level of 1 mg/L leachable cadmium for the same sample. The cause(s) of this high variability are not yet known, but they cast doubt on all of the analyses for leachable cadmium. They also cast doubt on how representative are the samples of the treated SBM material. If the variability is due to sample differences then a large number of samples will be required to determine what is representative of the treated SBM material.

Matrix effects are the result of other constituents present in a sample affecting the test result. They are often a source of variability in test results especially for waste samples which are frequently complex mixtures. Method 1311 states that the Method of Standard Additions should be used when results are within 20% of the regulatory limits. This would apply to most of the samples tested by the EPA contract laboratory. Using the Method of Standard Additions would verify that a test result was due to the presence of the tested constituent and not simply matrix effects from the presence of other constituents in the sample.

MDEQ Test Results:

The EPA lead sampling team collected split samples for the MDEQ. These samples were delivered to their laboratory in Pearl, Mississippi on June 4, 2014. The MDEQ laboratory provided only data summaries of the sample test results and these have been included in **Table 1** for comparison with the EPA and UST contract lab results. In contrast to the other two laboratories, the MDEQ lab found substantial levels of leachable cadmium in every sample. The ICP-MS test used by MDEQ for cadmium is subject to interferences and matrix effects which can substantially affect the observed values. This lab did not report any duplicate or matrix spikes or any calibration information. Method 1311 requires that the Method of Standard Additions be performed when the recovery of a matrix spike is less than 50% and the observed concentrations are within 20% of the regulatory limit. We don't know what matrix spike recoveries were observed or even if they were measured. However, we do know that the reported values were all within 20% of the regulatory value of 1 mg/l for cadmium or greater so reanalyzing the TCLP extracts using the Method of Standard Additions described in the TCLP Method 1311, Section 8.4 may help to support or rule out these high levels.

Questions have arisen regarding the high levels of cadmium reported by MDEQ and whether the high levels are the result of their testing the treated SBM samples directly without performing a TCLP extraction. When digesting the samples directly, the SBM samples would be treated like a soil or solid waste sample and digested directly with nitric and hydrochloric acids as detailed in SW-846 Methods 3050 A or B. This procedure would undoubtedly extract more metal than the acetic acid extraction described in the TCLP procedure, Method 1311. Consequently, if direct digestion was done, it would not be acceptable to use these results as the basis for claiming that the treated SBM was hazardous. In addition, these results should be reported as Total Recoverable Metal in mg/kg not TCLP metals in mg/L. These data could however, be used to show that the treated SBM was not hazardous if the total amount of metal extracted was less than the regulatory limit after correcting for the 20 times dilution of the TCLP procedure. The laboratory records and instrument printouts will show if this approach was utilized by the MDEQ lab or not.

An additional data set of US Tech samples collected on September 10, 2014 by Steve Bailey and tested for TCLP metals by the MDEQ lab was also received, but was not evaluated at this time since no information was available regarding the sampling locations, collection objectives, or testing details.

Additional Documents That Would be Useful in Evaluating the Discrepancies in Results:

Additional documents would be helpful in obtaining a more precise evaluation of the testing performed by the three laboratories. UST would respectfully request that BEG be provided access to the following documents in order to conduct that review:

1. Copies of logbook pages that describe the TCLP extraction by each laboratory of each UST treated SBM sample collected on June 3, 2014.
2. A detailed description of the acid digestion procedure or TCLP extraction that was used to digest each treated SBM sample and/or TCLP extract prior to instrumental analysis for metals.
3. Copies of the instrumental printouts from ICP-AES or ICP-MS systems that were used during the analysis of UST treated SBM samples or extracts from each laboratory. This should include their ICP instruments make and model, all calibrations, blank samples, matrix spike samples, continuing calibrations, duplicate samples, calculations, spike samples, and actual sample analyses obtained for this project.

References:

1) **Resource Conservation Recovery Act (RCRA) Compliance Evaluation Inspection, Hydromex, EPA ID No.: MSR 000 101 196**
2) **Resource Conservation Recovery Act (RCRA) Compliance Evaluation Inspection, Hydromex, EPA ID No.: MSR 000 101 196, Attachment C, Booz Allen Hamilton Report on "Sampling collection and analysis at the Hydromex facility.**
3) **SW-846, Methods 1311 (TCLP), 6010C (ICP-AES), 6020 (ICP-MS), 3050 A & B Digestion of soils and sludges.**
4) **EPA Methods 200.7 (ICP-AES) & 200.8 (ICP-MS).**
5) **Mississippi Department of Environmental Quality, Sample Results #AA62144-158 and #AA63940-48.**
6) **Ream & Haager Laboratory Inc., Certificate of Analysis for US Technologies, Final Report, Hydromex, June 11, 2014.**
7) **EPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Inorganic Superfund Methods, ISMO 2.2, August 2014.**

Table 1. TCLP Cadmium Test Results of US Technology Samples by Different Laboratories from June 3, 2014 Sampling, mg/l

Sample Number	Sample Location	EPA (EPA Method 6010C)	MDEQ (EPA Method 200.8)	UST (EPA Methods 200.7 & 200.8)
H-SW-01	Hydromex C-9 Pile Facility Split (MS/MD)	3.9	3.45	<0.01
H-SW-02	Hydromex D-10 Pile Facility Split	5.3	4.09	<0.01
H-SW-03	Hydromex E-5 Pile Facility Split	<0.01	2.73	<0.01
H-SW-04/10	Hydromex East Pile Shallow (0" - 3")/duplicate	<0.5/3.3	2.4/NS	NS
H-SW-05	Hydromex East Pile Deep (12")	4.1	2.5	NS
H-SW-06	Hydromex West Side Shallow (2" - 3")	<0.5	3.65	NS
H-SW-07	Canton Pile 1 (LF South) Powder (2" - 3")	3.0	2.51	NS
H-SW-08	Canton Pile 1 (LF South) Clod_	2.9	2.1	NS
H-SW-09	Canton Pile 2 (LF Middle) Powder (2" - 3")	3.2	2.42	NS
H-SW-11	Canton Pile 2 (LF Middle) Clod	<0.5	2.26	NS
H-SW-12/20	Canton Pile 3 (LF North) Powder (2" - 3")/duplicate	<0.5/4.0	3.32/NS	NS
H-SW-13	Canton Pile 3 (LF North) Powder Clod	2.7	1.21	NS
H-SW-14	Canton Landfill Runoff Area South (0" - 2")	<0.01	2.61	NS
H-SW-15	Canton Landfill Runoff Area North (0" - 2")	4.4	3.0	NS

NS = No Sample

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

DEC 04 2014

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Ray Williams
President, US Technology Services
4200 Munson Street, NW
Canton, Ohio 44718

SUBJ: Resource Conservation Recovery Act (RCRA) Compliance Evaluation Inspection
Hydromex, Inc.
EPA ID No.: MSR 000 101 196

Dear Mr. Williams:

On June 3, 2014, an Environmental Protection Agency lead RCRA Compliance Evaluation Inspection (CEI) was conducted by EPA at Hydromex, Inc., in Yazoo City, Mississippi to determine the facility's compliance status with RCRA. This RCRA CEI was an EPA-lead inspection.

Enclosed is the EPA RCRA Site Inspection Report, which indicates that deficiencies of RCRA regulations were discovered. A copy of this report has also been forwarded to MDEQ. If you have any questions regarding the inspection, please contact Héctor M. Danois of my staff, by phone at (404) 562-8556 or email at danois.hector@epa.gov.

Sincerely,

Larry L. Lamberth
Chief, South Enforcement and Compliance Section
RCRA and OPA Enforcement
and Compliance Branch

Enclosure

cc: Chris Sanders, MDEQ
Steven Bailey, MDEQ
Pat Ramsay, Hydromex, Inc.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

DEC 0 4 2014

Mr. Chris Sanders
Chief, Hazardous Waste Management Branch
Mississippi Department of Environmental Quality
Office of Pollution Control
Environmental Compliance and Enforcement Division
515 East Amite Street
Jackson, Mississippi 39201

SUBJ: RCRA Compliance Evaluation Inspection
Hydromex, Inc.
EPA ID No.: MSR 000 101 196

Dear Mr. Sanders:

On June 3, 2014, an Environmental Protection Agency lead RCRA Compliance Evaluation Inspection (CEI) was conducted by EPA at Hydromex, Inc., in Yazoo City, Mississippi to determine the facility's compliance status with RCRA.

Enclosed is the EPA RCRA Site Inspection Report which indicates that apparent deficiencies of RCRA regulations were discovered. The EPA considers this facility to be a Significant Non-Complier (SNC) and is taking the enforcement lead in this case.

This letter serves as the notification required in § 3008(a)(2) of RCRA. EPA will address Hydromex, Inc., noncompliance with the requirements provided in Section 3002 of RCRA, 42 U.S.C. § 6922 for alleged violations of Section 17-17-27 of the Mississippi Code of 1972, Miss. Code Ann. § 17-17-27 [Subtitle C of RCRA, 42 U.S.C. §§ 6921 to 6939e], and the Hazardous Waste Management Regulations (MHWMR) Parts 260 through 279 [40 C.F.R. Parts 260 through 279].

If you have any questions regarding the inspection, please contact Héctor M. Danois of my staff, by phone at (404) 562-8556 or email at danois.hector@epa.gov.

Sincerely,

Larry L. Lamberth
Chief, South Enforcement and Compliance Section
RCRA and OPA Enforcement
and Compliance Branch

Enclosure

United States Environmental Protection Agency
Region 4, Atlanta, Georgia
RCRA Compliance Evaluation Inspection Report

1. Inspector and Author of Report

Héctor M. Danois
Environmental Engineer
U.S. Environmental Protection Agency, Region 4
RCRA and OPA Enforcement and Compliance Branch
61 Forsyth Street
Atlanta, Georgia 30303
(404) 562-8556
danois.hector@epa.gov

2. Facility Information

Hydromex, Inc.
700 Industrial Parkway
Yazoo City, Mississippi 39194

3. Responsible Officials

Property Owner

Pat Ramsay
Hydromex, Inc.
1265 Old River Road
Yazoo City, Mississippi 39194

Operator

Ray Williams
President, US Technology Services
4200 Munson Street, NW
Canton, Ohio 44718

4. Inspection Participants

Jeffery Cluck, Hydromex, Inc.
Héctor M. Danois, Environmental Engineer, U.S. Environmental Protection Agency (EPA)
Larry L. Lamberth, Environmental Engineer, U.S. Environmental Protection Agency (EPA)
Steven R. Bailey, Environmental Engineer, Mississippi Department of Environmental Quality (MDEQ)
Danny Beasley, Environmental Engineer, Mississippi Department of Environmental Quality (MDEQ)
Phebe Davol, Booz Allen Hamilton
John Dixon, Booz Allen Hamilton

5. Date of Inspection

June 3, 2014

6. Applicable Federal and State Regulations

Resource Conservation and Recovery Act (RCRA), 42 U.S.C.A. §§ 6901 to 6992
Sections 3005 and 3007 of RCRA, 42 U.S.C.A. §§ 6925 and 6927
40 Code of Federal Regulations (C.F.R.) Parts 260-270, 273, and 279
Mississippi Hazardous Waste Management Regulations (MHWMR) Parts 260 through 273 and 279.

7. Purpose of Inspection

The purpose of the inspection conducted on June 3, 2014, was to conduct an unannounced RCRA Compliance Evaluation Inspection (CEI) to determine the facility's compliance with RCRA and its applicable regulations and the MHWMR.

8. Facility Description

In late 2000, Hydromex, Inc. (HI) began accepting spent blast media (SBM) from US Technologies (UST), which consisted of plastic, aluminum oxide and paint chips from airplane paint stripping operations around the country. The SBM and paint chips failed the Toxic Characteristic Leaching procedure (TCLP) for metals, including cadmium. HI planned to mix the SBM with cement and manufacture concrete blocks to be used in construction. HI stopped producing blocks because the blocks didn't meet strength requirements, and instead buried SBM and blocks in trenches on the property. This activity eventually led the owner of HI to plead guilty in criminal proceedings.

On July 18, 2003, UST, under an Agreed Order with MDEQ, agreed to remove the SBM from the soil and begin treating the SBM and contaminated soil to render it non-hazardous and acceptable for land disposal. (Agreed Order No. 4614-03 (Attachment A)). On February 28, 2011, under an Agreed Order Amendment, UST agreed to recycled the SBM and recovered material into concrete block. In addition, UST agreed to install and sample a number of groundwater monitoring wells. If the groundwater sampling results indicated the ground water concentration were above Maximum Contaminant Levels (MCLs), UST was to prepare and submit a Post-Closure Plan to MDEQ.

On June 13, 2013, under a Second Amendment to the Agreed Order, UST agreed to remediate the site, including recovery, reuse and recycling for the recyclable SBM and recovery, sampling and disposal of the non-recyclable SBM, before December 31, 2013. The order allowed UST to process the SBM at the site as intermediate road base approved by Mississippi Department of Transportation (MDOT). The SBM was to be delivered to MDOT in super sacks. The SBM was going to be mixed with 7% Portland Cement, and tested to meet strength and land disposal restriction requirements (LDRs) for Cadmium, Chromium and Lead. In addition, UST agreed to install and sample a number of groundwater monitoring wells. If the groundwater sampling results indicated the ground water concentration was above MCLs, UST was to prepare and submit a Post-Closure Plan to MDEQ.

On April 23, 2014, a Third Amendment to Agreed Order was issued to UST for violating the Second Amendment to Agreed Order Number 4614-03. In October and November, 2013, UST shipped via truck approximately 9,075,722 pounds of SBM from HI to Missouri Green Materials in Missouri. The previous order required that UST utilize the SBM as intermediate road base by December 31, 2013. In

the Third Amendment, UST agreed to treat the remaining SBM and contaminated soil at HI following a Workplan submitted to MDEQ on March 7, 2014. The Workplan, allowed UST to mix SBM with Portland cement (approx. 7%) and water to hydrate the mixture. The mixture would cure for some time before sampling. Once sampling is conducted and confirmed that the mixture meets LDR standards, the material could be disposed at a sanitary landfill in Canton, MS. In addition, UST agreed to install and sample a number of groundwater monitoring wells. If the groundwater sampling results indicated the ground water concentration were above MCLs, UST was to prepare and submit a Post-Closure Plan to MDEQ.

UST is currently the operator of HI and Mr. Pat Ramsay is the owner of the property. HI is registered as a non-generator of hazardous waste with the MDEQ.

9. Findings

On June 3, 2014, Héctor M. Danois and Larry L. Lamberth with the EPA, along with Steven R. Bailey and Danny Beasley with MDEQ, and Phebe Davol and John Dixon with Booz Allen Hamilton arrived at the facility. At approximately 9:00 a.m., Mr. Cluck, Project Manager of UST, received the inspectors. The inspectors introduced themselves, showed their credentials and explained the purpose of the visit. The following areas were inspected:

Main Building/Treatment Area

The main building is a metal roof open building, where UST treats the recovered SBM that was dug up from the onsite trenches (See Figures 1 and 2). The treatment process (See Figure 3) begins by transferring the supersacks containing the SBM into a large hopper that weighs the material. UST batch treats around 9,000 lbs of the hazardous waste material at a time. Then the material is sent to a conveyor that runs under another smaller hopper of portland cement. Then cement (10% by weight) and the SBM travel together into a rotating hugger, to mix both materials and add water (26% by weight) to start the curing process.

The operator maintains a log of the waste weight, cement and water volume for each batch. The treated waste is allowed to cure in one of six bays for a period of three to 19 days depending on the humidity and moisture content or until confirmatory sampling done by UST is in compliance with the Land Disposal Restrictions (LDRs) before it is disposed of in the City of Canton Landfill.

Outside Storage

At the time of the inspection, the inspection team noted over a thousand supersacks containing the SBM/soil mixture to be treated in the process described above. Mr. Cluck explained that the material has been stored in bags since 2011 when it was removed from the ground. The supersacks are stored outside before they are moved inside the main building for treatment. The supersacks were not labeled with the words "hazardous waste" and were not dated with an accumulation start date. All of the sacks were open to the environment, others were torn allowing water to infiltrate the sacks. In addition, all of the sacks had been stored for greater than 90 days. UST does not have a hazardous waste storage permit (See Figures 3, 4, 5 and 6).

UST appears to have failed to adhere to Section 17-17-27(4) of the Solid Wastes Disposal Law of 1974, Miss. Code Ann. § 17-17-27(4) [Section 3005 of RCRA, 42 U.S.C.A. § 6925], This statutory provision requires that owners and operators of hazardous waste treatment, storage and disposal facilities in Mississippi obtain a permit before the owners and operators start treating, storing and disposing hazardous waste.

UST appears to have failed to adhere to a condition for exemption from Section 17-17-27(4) of the Solid Wastes Disposal Law of 1974, Miss. Code Ann. § 17-17-27(4) [Section 3005 of RCRA, 42 U.S.C.A. § 6925], given in MHWMR Part 262, which incorporates MHWMR Part 265 [40 C.F.R. 262.34(a)(1)(i), which incorporates 40 C.F.R. 265.173(a)]. This regulation requires that containers holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste.

UST appears to be in violation of a condition for exemption from Section 17-17-27(4) of the Solid Wastes Disposal Law of 1974, Miss. Code Ann. § 17-17-27(4) [Section 3005 of RCRA, 42 U.S.C.A. § 6925], given in MHWMR Part 262, which incorporates MHWMR Part 265 [40 C.F.R. § 262.34(a)(1)(i), which incorporates 40 C.F.R. § 265.171], which requires that if a container holding hazardous waste is not in good condition, or if it begins to leak, the owner or operator must transfer the hazardous waste from the container to a container that is in good condition, or manage the waste in some other way that complies with the requirements.

UST appears to have failed to adhere to a condition for exemption from Section 17-17-27(4) of the Solid Wastes Disposal Law of 1974, Miss. Code Ann. § 17-17-27(4) [Section 3005 of RCRA, 42 U.S.C.A. § 6925], given in MHWMR Part 262 [40 C.F.R. § 262.34(a)(2)], which requires hazardous waste generators to clearly mark each hazardous waste container with the accumulation start date.

UST appears to have failed to adhere to a condition for exemption from Section 17-17-27(4) of the Solid Wastes Disposal Law of 1974, Miss. Code Ann. § 17-17-27(4) [Section 3005 of RCRA, 42 U.S.C.A. § 6925], given in MHWMR Part 262 [40 C.F.R. § 262.34(a)(3)], which states that a generator who accumulates either hazardous waste or acutely hazardous waste listed in MHWMR 261, must ensure each container and tank is labeled or marked clearly with the words, "Hazardous Waste".

UST appears to have failed to adhere to MHWMR Part 268 [40 C.F.R. § 268.50(a)(2)(i)]. This regulation requires an owner/operator of a hazardous waste treatment, storage, or disposal facility that stores hazardous waste in tanks, containers, or containment buildings solely for the purpose of the accumulation of such quantities of hazardous waste as necessary to facilitate proper recovery, treatment, or disposal, to clearly mark each containers too identify its contents and the date each period of accumulation begins.

UST appears to have failed to adhere to MHWMR Part 268 [40 C.F.R. § 268.50(b)]. This regulation requires that an owner/operator of a treatment, storage or disposal facility may store such wastes for up to one year unless the Agency can demonstrate that such storage was not solely for the purpose of accumulation of such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment, or disposal.

Sampling

During the inspection, the inspection team directed Booz Allen to take samples of the treated waste, the waste stored in piles inside the facility, as well as material disposed of in the landfill. Both MDEQ and UST were provided with split samples.

HI Sample Results, RCRA 8 Metals RCRA Toxicity Characteristic (TC) Exceedances		
Sample ID	Sample Location	TCLP Exceedances
H-SW-01	C-9 Pile Facility Spilt (MS/MD)	Cadmium - 3.9 mg/L
H-SW-02	D-10 Pile Facility Split	Cadmium - 5.3 mg/L
H-SW-03	E-5 Pile Facility Spilt	None
H-SW-04	East Pile Shallow (0"-3")	None
H-SW-05	East Pile Deep (12")	Cadmium - 4.1 mg/L
H-SW-06	West Side Shallow (2"-3")	None
H-SW-07	Pile 1 (LF South) Powder (2"-3")	Cadmium - 3 mg/L
H-SW-08	Pile 1 (LF South) Clod	Cadmium - 2.9 mg/L
H-SW-09	Pile 2 (LF Middle) Powder (2"-3")	Cadmium - 3.2 mg/L
H-SW-10	Duplicate of H-SW-04 East Pile Shallow (0"-3")	Cadmium - 3.3 mg/L
H-SW-11	Pile 2 (LF Middle) Clod	None
H-SW-12	Pile 3 (LF North) Powder (2"-3")	None
H-SW-13	Pile 3 (LF North) Powder Clod	Cadmium - 2.7 mg/L
H-SW-14	Landfill Runoff Area South (0-2")	None
H-SW-15	Landfill Runoff Area North (0-2")	Cadmium - 4.4
H-SW-20	Duplicate of H-SW-12 Pile 3 (LF North) Powder	Cadmium – 4

Samples collected were analyzed for Toxicity Characteristic Constituents and compared to RCRA Regulatory Standards in 40 C.F.R. § 261.24 (b), as well as comparison for both RCRA metals and PCBs to the Universal Treatment Standards (UTS) for land disposal, per 40 C.F.R. § 268.48(a).

RCRA 8 Metals	**Limits (mg/L TCLP) per 40 C.F.R. § 261.24(b)**	**Limits (mg/L TCLP) per 40 C.F.R. § 268.48(a) (LDR)**
Arsenic (As)	5 mg/L	5 mg/L
Barium (Ba)	100 mg/L	21 mg/L
Cadmium (Cd)	1 mg/L	0.11 mg/L
Chromium (Cr)	5 mg/L	0.6 mg/L
Lead (Pd)	5 mg/L	0.75 mg/L
Selenium (Se)	1 mg/L	0.57 mg/L
Silver (Si)	5 mg/L	0.14 mg/L
Mercury (Hg)	0.2 mg/L	0.025 mg/L

Analytical results showed that the treatment system currently used by UST is not properly treating the hazardous waste to meet TCLP and LDR levels. As UST does not have a permit to store hazardous waste, the following apply:

UST is in apparent violation of MHWMR 264.250 [40 C.F.R. § 264.250], which establishes design and operating requirements for owners and operators of facilities that store hazardous waste in piles. UST was managing hazardous waste in piles in the Main Building.

As the SBM/soil mixture had not been properly treated, UST was transporting and disposing of hazardous waste in a municipal landfill.

UST appears to have failed to adhere to Section 17-17-27(4) of the Solid Wastes Disposal Law of 1974, Miss. Code Ann. § 17-17-27(4) [Section 3005 of RCRA, 42 U.S.C.A. § 6925], This statutory provision requires that owners and operators of hazardous waste treatment, storage and disposal facilities in Mississippi obtain a permit before the owners and operators start treating, storing and disposing hazardous waste. UST is disposing of hazardous waste in the City of Canton landfill without a permit.

UST is in apparent violation of MHWMR 263.11(a) [40 C.F.R. § 263.11], which requires that a transporter must not transport hazardous wastes without having received an EPA identification number from the Administrator. UST is transporting hazardous waste to the City of Canton Landfill without first obtaining an EPA identification before transporting the hazardous waste.

UST is in apparent violation of MHWMR 262 [40 C.F.R. § 262.20], which requires a generator who transports, or offers for transport, a hazardous waste for offsite treatment, storage or disposal or a treatment, storage, and disposal facility who offers for transport a rejected hazardous waste load, must prepare a Manifest (OMB Control Number 2050-0039) on EPA Form 8700-22, and if necessary, EPA Form 8700-22A.

10. Signed

Héctor M. Danois, Environmental Engineer
South Enforcement and Compliance Section
RCRA and OPA Enforcement and Compliance Branch

12 · 2 · 14
Date

11. Concurrence/Approval

Larry L. Lamberth
Chief, South Enforcement and Compliance Section
RCRA and OPA Enforcement and Compliance Branch

12/04/14
Date

Attachment A – MDEQ Agreed Order

BEFORE THE MISSISSIPPI COMMISSION
ON ENVIRONMENTAL QUALITY

MISSISSIPPI COMMISSION ON
ENVIRONMENTAL QUALITY

COMPLAINANT

VS. **THIRD AMENDMENT TO AGREED ORDER NO. 4614 03**

US TECHNOLOGY CORPORATION

RESPONDENT

In The Matter Of: Recycling Activities of U.S. Technology Corporation at Hydromex, Inc., Yazoo City, Mississippi

THIRD AGREED ORDER AMENDMENT

COMES NOW the Mississippi Commission on Environmental Quality Commission ("Commission") acting through the staff of the Mississippi Department of Environmental Quality ("MDEQ"), Complainant, and US Technology Corporation, Respondent, in the above captioned cause and agree as follows:

1.

In October and November, 2013, US Technology Corporation shipped via truck approximately 9,075,722 pounds of wastes including Spend Blast Media ("SBM") from the Hydromex site located at 700 Industrial Parkway, Yazoo City, Mississippi, 39194, to Missouri Green Materials ("MGM") without obtaining the required approval from MDEQ. This action by

AI ID 17589
ENF20040002

ECED

Respondent was a violation of the Second Amendment to Agreed Order Number 4614-03 previously issued on June 13, 2013, in the above referenced matter and attached hereto as Exhibit "A". Approximately 7,000,000 pounds of the wastes remain on location at the Hydromex site.

2.

Sections 2.B., 2.Q., 2.R., 2.T. and 4. of the Second Amendment to Agreed Order No. 4614 03 specifically require that US Technology utilize the processed SBM as intermediate road base as approved by the Mississippi Department of Transportation ("MDOT") at MDOT(s) site(s) and to properly dispose of the materials by December 31, 2013.

3.

Additionally Section 2.T of the Second Amendment to Agreed Order 4614 03 specifically requires any deviation from the Second Amendment be approved in advance in writing by MDEQ on behalf of the Commission.

4.

In violation of Sections 2.B., 2.Q., 2.R, 2.T. and 4. of the Second Amendment to Agreed Order No. 4614 03, US Technology Corporation has failed to use the SBM at the MDOT site(s) and did not properly dispose of the remaining material by December 31, 2013; and further, US Technology did not seek or gain approval in advance from MDEQ prior to shipping approximately 9,075,722 pounds of wastes including SBM to Missouri.

In lieu of a formal enforcement hearing concerning the violations list above, Complainant and US Technology agree to settle this matter as follows:

A. US Technology agrees to pay and Complainant agrees to accept a civil penalty in the amount of $45,000 consistent with the stipulated penalty provision in Section 2.R. of the Second Amendment to Agreed Order. US Technology shall pay to MDEQ $22,500 within forty five (45) days after the date this Agreed Order Amendment is executed by the MDEQ Executive Director, or her designee (the "Execution Date"). US Technology Corporation shall pay the remaining $22,500 to MDEQ on or before October 15, 2014. The settlement payments above shall be submitted to the following address:

Mississippi Department of Environmental Quality
Attn: Jennifer Parish
P.O. Box 2339
Jackson, MS 39225

B. US Technology further agrees to treat and dispose of the remaining approximately 7 million pounds of wastes including SBM and contaminated soil at the Hydromex site in strict compliance with the Treatment and Disposal Workplan submitted by US Technology Corporation through correspondence to MDEQ dated March 7, 2014, with the exception of the additional requirement provided below. A copy of the Treatment and Disposal Workplan, which is incorporated herein by reference, is attached as Exhibit "B". In addition to the Treatment and Disposal plan requirements, US Technology must treat the wastes at the site to meet federal land disposal

restrictions ("LDR") standards before transportation and disposal of the treated material.

C. US Technology Corporation agrees not to ship any additional wastes to Mississippi.

D. To accomplish the remaining remediation of the Hydromex site, the Commission requires and US Technology Corporation agrees to amend the requirements of the Second Amendment to Agreed Order No. 4614 03 issued June 13, 2013, as follows:

(1) Paragraph 1 of the Second Amendment to Agreed Order 4614 03 shall be replaced with the following amended text:

US Technology now seeks permission from the Commission to remediate he former Hydromex, Inc., site. The ultimate objective of this Third Amendment to Agreed Order is to remediate the site to clean closure. As used in this document, the term "site" shall mean the former Hydromex, Inc. site located at 700 Industrial Parkway, Yazoo City, Mississippi 39194, as generally shown on the Site Survey prepared by Lamar Warmack, P.S., and stamped September 11, 2009.

(2) Paragraph 2 of the above referenced Second Amendment to Agreed Order including subparagraphs A-V shall be replaced with the following amended text:

The Commission now enters into this Third Amendment to Agreed Order and agrees with US Technology that, within the context of the

enforcement action begun by the Commission by the issuance of Order 4510-02 against Hydromex, Inc., US Technology Corporation shall remediate the site under the following conditions:

(a) Upon recovery of wastes from the site, US Technology shall sample and analyze the surrounding horizontal and vertical soil matrix and over-excavate until residual levels do not exceed Mississippi TRG standards. The sampling results shall be provided to MDEQ, and MDEQ may take split samples. US Technology shall dispose of the over- excavated soil as approved by MDEQ.

(b) Within 90 days of the Execution Date of this Third Amendment to Agreed Order, US Technology shall install an appropriate number of onsite groundwater monitoring wells. The number, locations, and depths of these wells will be determined by MDEQ. Existing wells (if any) from prior onsite operations and determined by MDEQ to be functional will substitute for new wells.

(c) Once quarterly for a minimum of four (4) successive quarters, US Technology shall take and analyze samples from the groundwater monitoring wells and submit the analytical results to MDEQ. The number of quarterly groundwater sampling events in excess of the first four (4) will be determined by MDEQ. Two weeks prior to each sampling event, US Technology shall notify MDEQ of the sampling date and time. MDEQ may observe US Technology's collecting of the samples and may take split samples. The first quarterly groundwater sampling event shall be

conducted within fourteen (14) days of the installation of the groundwater monitoring wells.

(d) Within ninety (90) days of the final groundwater sampling event, US Technology shall prepare and submit to MDEQ a Final Report including the following:

1. Total volume/mass of wastes removed from the Hydromex site.
2. Total volume/mass and disposition of soil removed from the zones surrounding the recovered wastes necessary to yield residual, in situ chemical concentrations not to exceed Mississippi TRG standards.
3. All sampling and analytical data including QA/QC.
4. Closure summary of the site.

(e) If the groundwater sampling results indicate that groundwater concentrations of Cadmium or Chromium are above Maximum Contaminant Levels (MCLs) of 0.005mg/l and 0.1 mg/l, respectively, then within six (6) months of MDEQ's approval of US Technology's Final Report, US Technology shall prepare and submit a Post- Closure Plan for approval by MDEQ. The Post-Closure Plan shall set out US Technology's plan to bring groundwater levels into compliance or shall demonstrate that groundwater concentrations above MCLs will not migrate off-site. The Post-Closure Plan shall also provide for additional groundwater monitoring until it meets MCLs. Upon approval by MDEQ

of US Technology's Post-Closure Plan, US Technology shall carry out the Post-Closure Plan at its expense.

(f) After the approval of US Technology's Final Report or, if a Post-Closure Plan is necessary, after the completion of activities required by the Post-Closure Plan, MDEQ will issue an appropriate determination that no further corrective action on the property is required at that time. If cleanup standards change or additional data becomes available related to the property, then MDEQ will notify the appropriate parties of the need for any additional investigations or remedial actions. These actions will be consistent with MDEQ's need to protect human health, welfare, and the environment.

(g) US Technology shall have 180 days from the Execution Date of this Third Amendment to Agreed Order, to complete disposal of the wastes, over-excavation of the soil, and disposal of the over- excavated soil.

(h) Upon failure to complete the required disposal of the wastes including SBM, over-excavation of the soil, and disposal of the over-excavated soil within 180 days from the Execution Date of this Third Amendment to Agreed Order, US Technology shall pay a stipulated penalty of $5,000 per calendar week until such time as all of these specific obligations are met.

(i) If a natural disaster occurs, such as a hurricane, tornado, or flood, after mobilization at the site begins, thus interrupting or preventing operations, MDEQ and US Technology will adjust the time of performance accordingly.

(j) All activities undertaken at the site by US Technology or anyone acting on behalf of US Technology (including, but not limited to, a disclosed agent, undisclosed agent, employee, or independent contractor) must conform to this Third Amendment to Agreed Order and, if it becomes necessary, the Post-Closure Plan, after such plans have been approved by MDEQ.

(k) Any deviation from this Third Amendment to Agreed Order must be approved in advance in writing by MDEQ on behalf of the Commission.

(l) All activities undertaken at the site by US Technology or anyone acting on behalf of US Technology (including, but not limited to, a disclosed agent, undisclosed agent, employee, or independent contractor) must comply with all federal, state and local environmental laws and permits applicable to activities at the site.

(m) US Technology shall pay all necessary and reasonable costs of MDEQ's actions associated with MDEQ's administration and evaluation of the site in accordance with Mississippi Commission on Environmental Quality Agreed Order Number 5611-09, attached hereto as Exhibit "C", issued July 23, 2009, and any amendments thereto.

(3) Paragraph 4 of the above referenced Second Amendment to Agreed Order shall be replaced with the following amended text:

The execution of this Third Amendment to Agreed Order by US Technology constitutes US Technology's commitment to remediate the site to clean closure. The failure to honor that commitment, the modification of the process used at the site from that approved by this Third Amendment to Agreed Order or any other

violation of the applicable provisions of the Second Amendment to Agreed Order, the Agreed Order Amendment or Agreed Order No. 4614 03 shall subject US Technology to penalties of up to $25,000 per day per violation pursuant to Mississippi Code Annotated section 49-17-43(1).

6.

The parties agree that by entering into this Third Amendment to Agreed Order Amendment, US Technology does not admit the truth of any allegation in this Third Amendment to Agreed Order, and without any admission of liability by US Technology, US Technology consents to the entry of this Third Amendment to Agreed Order resolving the claims of the Commission addressed herein. At the same time, the parties agree that the Commission continues to allege that the matters addressed herein are violations as expressed herein.

7.

All other provisions of Agreed Order Number 4614 03, Amendment to Agreed Order No. 4614-03 and the Second Amendment to Agreed Order No. 4614 03 remain unchanged, including Exhibit "1" (Mississippi Commission on Environmental Quality Order Number 4510 02), which remains a part of and incorporated within Agreed Order Number 4614 03.

8.

Nothing in this Third Amendment to Agreed Order shall limit the rights of MDEQ or the Commission in the event US Technology fails to comply with this Third Amendment to Agreed Order. The Third Amendment to Agreed Order shall be strictly construed to those matters expressly resolved herein.

9.

Nothing contained in this Third Amendment to Agreed Order shall limit the rights of MDEQ or the Commission to take enforcement or other actions against Respondent for violations not addressed herein and for future violations of environmental laws, rules and regulations.

10.

US Technology understands and acknowledges that it is entitled to an evidentiary hearing before the Commission pursuant to Mississippi Code Annotated §49-17-31, and that it has made an informed waiver of that right.

ORDERED, this the 23 day of April, 2014.

FOR: MISSISSIPPI COMMISSION ON ENVIRONMENTAL QUALITY

BY: _____
TRUDY D. FISHER

EXECUTIVE DIRECTOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

AI ID 17586
ENF20040002

BCED

AGREED, this the 22 day of April, 2014.

FOR: US TECHNOLOGY CORPORATION

BY (SIGNATURE) _____, President

PRINTED NAME: Raymond F. Williams

TITLE: President

STATE OF Ohio

COUNTY OF Stark

Personally appeared before me, the undersigned authority in and for the jurisdiction aforesaid, the within named Raymond F. Williams, who acknowledged that he/she is the President (title) of US Technology Corporation and that he/she is authorized to sign this agreement and to enter into this agreement on behalf of US Technology Corporation.

SWORN TO AND SUBSCRIBED BEFORE ME THIS THE 22ND day of APRIL, 2014.

_____
NOTARY PUBLIC

My Commission Expires:

7/29/2018

JILL L. ALDRIDGE
Notary Public, State of Ohio
My Commission Expires 7/29/18

AI ID 17595
ENF20040002

ECED

BEFORE THE MISSISSIPPI COMMISSION ON ENVIRONMENTAL QUALITY

In The Matter Of: Recycling Activities of U.S. Technology Corporation at Hydromex, Inc., Yazoo City, Mississippi

SECOND AMENDMENT TO AGREED ORDER NO. 4614-03

SECOND AGREED ORDER AMENDMENT

Mississippi Commission on Environmental Quality Amendment to Agreed Order Number 4614-03, attached hereto as Exhibit "A," previously issued on February 28, 2011, in the above referenced matter and, came on this day for reconsideration upon the joint request of the Mississippi Commission on Environmental Quality ("Commission") and U.S. Technology Corporation ("U.S. Technology"). The Executive Director of the Mississippi Department of Environmental Quality ("MDEQ"), having received information that the Commission has required and U.S. Technology has agreed to remediate the former Hydromex, Inc., site located at 700 Industrial Parkway, Yazoo City, Mississippi 39194 as discussed herein, finds that the requirements outlined in the above referenced Amendment to Agreed Order should be amended as follows:

I

Paragraph 1. of the Amendment to Agreed Order shall be replaced with the following amended text:

1. U.S. Technology now seeks permission from the Commission to remediate the former Hydromex, Inc., site. The ultimate objective of this Second Amendment to Agreed Order is to remediate the site to clean closure. As used in this document, the term "site" shall mean the former Hydromex, Inc., site located at 700 Industrial Parkway, Yazoo City, Mississippi 39194, as generally shown on

EXHIBIT
A

the Site Survey prepared by Lamar Warnack, P.S., and stamped September 11, 2009.

2.

Paragraph 3. of the above referenced Amendment to Agreed Order including subparagraphs A-B3 shall be replaced with the following amended text:

3. The Commission now enters into this Second Amendment to Agreed Order and agrees with U.S. Technology that, within the context of the enforcement action begun by the Commission by the issuance of Order Number 4510-02 against Hydromex, Inc., U.S. Technology may remediate the site under the following conditions:

A. On or before December 31, 2013, U.S. Technology shall remediate the site, including recovery, reuse, and recycling for the recyclable materials and recovery, sampling, and disposal for the non-recyclable materials. As used in this document, the term "materials" shall mean all materials at the site, including, but not limited to, spent blast media ("SBM"). This Second Amendment to Agreed Order provides additional time to U. S. Technology to remediate the site as the Amendment to Agreed Order (Notice to Proceed) provided U.S. Technology until June 9, 2013, to remediate the site.

B. U.S. Technology will be allowed to utilize the processed SBM at the site as intermediate road base as approved by

the Mississippi Department of Transportation ("MDOT").

C. All SBM shall be delivered to the MDOT construction site(s) in super sacks or covered dump trucks with controlled width and depth spreader mechanisms. If the SBM is delivered in super sacks, it shall be loaded into the spreader truck at the MDOT construction site for application on the other sub base materials.

D. The SBM shall be assigned an appropriate layer within the ascribed layers of sub-base aggregate materials by the MDOT Engineering Division. The SBM shall be applied in a controlled thickness and width within the controlled confines of the sub-base area. The SBM shall comprise 10% of the sub-base materials.

E. The building of the sub-base materials, compression, mixing, application and Portland cement controls shall be performed in compliance with MDOT Special Provision 907-308 attached as Exhibit "B".

F. Sub-base materials shall be compressed to a density of 97% average by mechanical means prior to application of cement.

G. Portland Cement, at 7% or at a sufficient quantity as directed by the MDOT Engineering Division to achieve a minimum 300 psi compressive strength of the combined

sub-base materials, shall be overlaid and thoroughly mixed consistent with IAW section 308.03.2 with the sub-base materials and sufficient water to properly hydrate the mixture. Curing shall last 7 days.

11. A sample shall be taken of the cured sub-base material by U.S. Technology in coordination with MDOT Engineering Division for each 1000 cubic yards of roadway sub-base for the initial six (6) sampling events. The sample results shall not exceed TCLP concentrations of 0.11 mg/l for Cadmium, 0.60 mg/l for Chromium and 0.75 mg/l for Lead. If all initial six (6) TCLP sampling results pass, U.S. Technology shall collect a sample of the cured sub-base material for each 2000 cubic yards of roadway sub-base for the next six (6) sampling events. If the next six (6) sampling results pass the appropriate limits, U.S. Technology shall collect a sample of the cured sub-base material for each 4000 cubic yards of roadway sub-base for the next six (6) sampling events. If these sampling results pass sampling limits, U.S. Technology shall collect a sample of the cured sub-base material for each 8000 cubic yards of roadway sub-base for the remainder of the project. U.S. Technology shall promptly provide MDEQ with all sampling results.

I. The lab to be used by U.S. Technology for all sampling analysis shall be mutually agreed to in writing by MDEQ and U.S. Technology.

J. In the event any sample fails TCLP testing for chromium, cadmium or lead, that volume shall be treated with additional Portland cement injection and retested by U.S. Technology until it passes TCLP limits.

K. Upon recovery of materials from the site, U.S. Technology shall sample and analyze the surrounding horizontal and vertical soil matrix and over-excavate until residual levels do not exceed TCLP concentrations of 0.11 mg/l for Cadmium, 0.60 mg/l for Chromium, and 0.75 mg/l for Lead. U.S. Technology may analyze for total concentrations of each constituent and use the appropriate conversion factor to determine compliance with the TCLP concentrations. The sampling results shall be provided to MDEQ, and MDEQ may take split samples. U.S. Technology shall dispose of the over-excavated soil as approved by MDEQ.

L. Within 60 days of completion of over-excavation of the soil, U.S. Technology shall install an appropriate number of onsite groundwater monitoring wells. The number, locations, and depths of these wells will be determined by

MDEQ. Existing wells (if any) from prior onsite operations and determined by MDEQ to be functional will substitute for new wells.

M. Once quarterly for a minimum of four (4) successive quarters, U.S. Technology shall take and analyze samples from the groundwater monitoring wells and submit the analytical results to MDEQ. The number of quarterly groundwater sampling events in excess of the first four (4) will be determined by MDEQ. Two weeks prior to each sampling event, U.S. Technology shall notify MDEQ of the sampling date and time. MDEQ may observe U.S. Technology's collecting of the samples and may take split samples. The first quarterly groundwater sampling event shall be conducted within fourteen (14) days of the installation of the groundwater monitoring wells.

N. Within ninety (90) days of the final groundwater sampling event, U.S. Technology shall prepare and submit to MDEQ a Final Report including the following:

1. Total volume of materials recovered.

2. Total volume of materials determined to be recyclable and disposition.

3. Total volume and disposition of materials determined to be non-recyclable.

4. Total volume and disposition of soil removed from the zones surrounding the recovered materials necessary to yield residual, in situ chemical concentrations not to exceed TCLP concentrations of 0.11 mg/l for Cadmium, 0.60 mg/l for Chromium, and 0.75 mg/l for Lead. U.S. Technology may analyze for total concentrations of each constituent and use the appropriate conversion factor to determine compliance with the TCLP concentrations.

5. All sampling and analytical data including QA/QC.

6. Closure summary of the site.

O. If the groundwater sampling results indicate that groundwater concentrations of Cadmium or Chromium are above Maximum Contaminant Levels (MCLs) of 0.005mg/l and 0.1 mg/l, respectively, then within six (6) months of MDEQ's approval of U.S. Technology's Final Report, U.S. Technology shall prepare and submit a Post-Closure Plan for approval by MDEQ. The Post-Closure Plan shall set out U.S. Technology's plan to bring groundwater levels into compliance or shall demonstrate that groundwater concentrations above MCLs will not

migrate off-site. The Post-Closure Plan shall also provide for additional groundwater monitoring until it meets MCLs. Upon approval by MDEQ of U.S. Technology's Post-Closure Plan, U.S. Technology shall carry out the Post-Closure Plan at its expense.

P. After the approval of U.S. Technology's Final Report or, if a Post-Closure Plan is necessary, after the completion of activities required by the Post-Closure Plan, MDEQ will issue an appropriate determination that no further corrective action on the property is required at that time. If cleanup standards change or additional data becomes available related to the property, then MDEQ will notify the appropriate parties of the need for any additional investigations or remedial actions. These actions will be consistent with MDEQ's need to protect human health, welfare, and the environment.

Q. U.S. Technology shall have until December 31, 2013, to complete the processes of materials recovery, shipment and reuse of the recyclable materials to MDOT site(s), disposal of the non-recyclable materials, over-excavation of the soil, and disposal of the over-excavated soil.

R. Upon failure to complete the processes of materials recovery, shipment and reuse of the recyclable materials to

the MDOT site(s), disposal of the non-recyclable materials, over-excavation of the soil, and disposal of the over-excavated soil, U.S. Technology shall pay a stipulated penalty of $5,000 per calendar week until such time as all of these specific obligations are met.

S. If a natural disaster occurs, such as a hurricane, tornado, or flood, after mobilization at the site begins, thus interrupting or preventing operations, MDEQ and U.S. Technology will adjust the time of performance accordingly.

T. All activities undertaken at the site by U.S. Technology or anyone acting on behalf of U.S. Technology (including, but not limited to, a disclosed agent, undisclosed agent, employee, or independent contractor) must conform to this Second Amendment to Agreed Order and, if it becomes necessary, the Post-Closure Plan, after such plans have been approved by MDEQ. Any deviation from this Second Amendment to Agreed Order must be approved in advance in writing by MDEQ on behalf of the Commission.

U. All activities undertaken at the site by U.S. Technology or anyone acting on behalf of U.S. Technology (including, but not limited to, a disclosed agent, undisclosed agent, employee, or independent contractor) must comply with all federal, state, and local environmental laws and permits

applicable to activities at the site.

V. U.S. Technology shall pay all necessary and reasonable costs of MDEQ's actions associated with MDEQ's administration and evaluation of the site in accordance with Mississippi Commission on Environmental Quality Agreed Order Number 5611-09, attached hereto as Exhibit "C," issued July 23, 2009, and any amendments thereto.

4.

Paragraph 4. of the above referenced Amendment to Agreed Order shall be replaced with the following amended text:

4. The execution of this Second Amendment to Agreed Order Amendment by U.S. Technology constitutes U.S. Technology's commitment to remediate the site to clean closure. The failure to honor that commitment, the modification of the process used at the site from that approved by this Second Amendment to Agreed Order or any other violation of the applicable provisions of the Second Amendment to Agreed Order, the Agreed Order Amendment or Agreed Order No. 4614 03 shall subject U.S. Technology to penalties of up to $25,000 per day per violation pursuant to Mississippi Code Annotated section 49-17-43(1).

5.

All other provisions of Agreed Order Number 4614-03 and Amendment to Agreed Order No. 4614-03 remain unchanged, including Exhibit "1" (Mississippi Commission on

Environmental Quality Order Number 4510-02), which remains a part of and incorporated within Agreed Order Number 4614-03.

6.

U.S. Technology understands and acknowledges that it is entitled to an evidentiary hearing before the Commission pursuant to Mississippi Code Annotated section 49-17-31, and that it has made an informed waiver of that right.

ORDERED, this the 13 day of June, 2013.

FOR: MISSISSIPPI COMMISSION ON ENVIRONMENTAL QUALITY

BY: _____, Director of MDEQ Office of Pollution Control

TRUDY D. FISHER
EXECUTIVE DIRECTOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
Authorized Signatory for Trudy Fisher

AGREED, this the 13 day of June, 2013.

FOR: U.S. TECHNOLOGY CORPORATION

BY (SIGNATURE): [signature]

PRINTED NAME: Raymond F. Williams

TITLE: President

STATE OF OHIO

COUNTY OF STARK

Personally appeared before me, the undersigned authority in and for the jurisdiction aforesaid, the within named Raymond F. Williams, who acknowledged that he/she is the President (title) of U.S. Technology Corporation and that he/she is authorized to sign this agreement and to enter into this agreement on behalf of U.S. Technology Corporation.

SWORN TO AND SUBSCRIBED BEFORE ME, this the 3rd day of June 2013.

[signature]
NOTARY PUBLIC

My Commission Expires:

7/28/2013

NOTARIAL SEAL STATE OF OHIO

JILL L. ALDRIDGE
Notary Public, State of Ohio
My Commission Expires 7-28-13

BEFORE THE MISSISSIPPI COMMISSION
ON ENVIRONMENTAL QUALITY

In The Matter Of: Recycling Activities of U.S. Technology Corporation at Hydromex, Inc., Yazoo City, Mississippi

AMENDMENT TO
AGREED ORDER NO. 4614-03

AGREED ORDER AMENDMENT

Mississippi Commission on Environmental Quality Agreed Order Number 4614-03, attached hereto as Exhibit "A," previously issued on July 18, 2003, in the above referenced matter, came on this day for reconsideration upon the joint request of the Mississippi Commission on Environmental Quality ("Commission") and U.S. Technology Corporation ("U.S. Technology"). The Executive Director of the Mississippi Department of Environmental Quality ("MDEQ"), having received information that the Commission has required and U.S. Technology has agreed to remediate the former Hydromex, Inc., site located at 700 Industrial Parkway, Yazoo City, Mississippi 39194 as discussed herein, finds that the requirements outlined in the above referenced Agreed Order should be amended as follows:

I.

Paragraph 3. of the above referenced Agreed Order shall be replaced with the following amended text:

> 3. U.S. Technology now seeks permission from the Commission to remediate the former Hydromex, Inc., site. The ultimate objective of this Agreed Order Amendment is to remediate the site to clean closure. As used in this document, the term "site" shall mean the former Hydromex, Inc., site located at 700 Industrial Parkway, Yazoo City, Mississippi 39194, as generally shown on the Site Survey

EXHIBIT
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prepared by Lamar Warmack, P.S., and stamped September 11, 2009.

2.

Paragraph 4. of the above referenced Agreed Order shall be removed.

3.

Paragraph 5. of the above referenced Agreed Order shall be replaced with the following amended text:

5. The Commission now enters into this Agreed Order Amendment and agrees with U.S. Technology that, within the context of the enforcement action begun by the Commission by the issuance of Order Number 4510-02 against Hydromex, Inc., U.S. Technology may remediate the site under the following conditions:

A. Within thirty (30) days of the execution of this Amendment to Agreed Order Number 4614-03, U.S. Technology shall submit a Site Remediation Plan to MDEQ for approval. The Site Remediation Plan shall detail all aspects of U.S. Technology's plan to remediate the site, including recovery, reconstitution, and recycling for the recyclable materials and recovery, sampling, and disposal for the non-recyclable materials. As used in this document, the term "materials" shall mean all materials at the site, including, but not limited to, spent blast media ("SBM").

B. After MDEQ approves U.S. Technology's Site Remediation Plan, U.S. Technology shall obtain all necessary

environmental permits.

C. MDEQ will undertake and complete whatever public notice or other procedures are required before U.S Technology may initiate remediation operations at the site. When these procedures run their course, MDEQ will give U.S. Technology a written Notice to Proceed.

D. U.S. Technology shall use its own forces and equipment, and such contractors as might be necessary, to carry out the operations described in its Site Remediation Plan.

E. Recyclable materials that are recovered from the site shall be reconstituted onsite by drying, if necessary, and crushing, grinding, and grading using rock crushers, hammer mills, and sieve shakers to ensure particle uniformity and acceptable size distribution for use as feedstock in the manufacture of beneficial products at a manufacturing facility designated by U.S. Technology.

F. After recovery and reconstitution, the recyclable materials shall be containerized and held in dry storage onsite, pending shipment to the designated manufacturing facility. Shipment rates to this facility shall be controlled by the production capacity of the facility.

G. Recyclable materials recovered at the site shall be used as an

ingredient in the manufacture of either (1) cast concrete architectural or masonry blocks, or (2) cast concrete blocks that will be used in the construction of articulated revetment mattresses for bank stabilization purposes.

II. U.S. Technology shall, through its recycling contracts, specifically require, as a condition of sales and distribution, that blocks manufactured for bank stabilization projects be (1) placed only in locations above the ordinary mean high water mark, where the blocks would be subject to only infrequent wetting, and not permanently submerged and (2) marked in a manner indicating that SBM was used in the manufacturing of the blocks.

I. Blocks made for normal architectural/construction purposes shall conform to the structural requirements of ASTM C90 or equivalent and shall meet industry, EPA, and OSHA standards for commercial products. Blocks made for use in bank stabilization projects shall conform to the structural requirements and specifications prescribed by the U. S. Army Corps of Engineers. U.S. Technology shall conduct representative sampling sufficient to demonstrate that the blocks meet the applicable structural requirements and standards or specifications. Upon MDEQ's request, U.S.

Technology shall report its sampling results to MDEQ.

I. Upon MDEQ's request, U.S. Technology shall perform TCLP analyses on the blocks and report its results to MDEQ. The blocks shall not exceed TCLP concentrations of 1.0 mg/l for Cadmium, 5.0 mg/l for Chromium, and 5.0 mg/l for Lead. U.S. Technology may analyze for total concentrations of each constituent and use the appropriate conversion factor to determine compliance with the TCLP concentrations.

K. Any blocks made with SBM that do not meet the requirements set out above shall be crushed and reintroduced into the recycling process.

L. U.S. Technology shall prepare and, upon MDEQ's request, submit to MDEQ a report including the following information regarding block production:

1. Number of blocks produced as of the date of the report.

2. Number of blocks stored at the designated manufacturing facility as of the date of the report.

3. Number of blocks moved offsite from the designated manufacturing facility as of the date of the report.

M. Nothing in this Agreed Order Amendment shall limit the

Commission's authority to issue an additional Order prohibiting the production of additional blocks until the blocks stored at the designated manufacturing facility are delivered to a purchaser.

N. All materials deemed by MDEQ to be non-recyclable shall be evaluated, at U.S. Technology's expense, for appropriate disposition as determined by MDEQ. The sampling results shall be provided to MDEQ, and MDEQ may take split samples. U.S. Technology shall then dispose of the non-recyclable materials as approved by MDEQ.

O. The lab to be used by U.S. Technology for all sampling analysis shall be mutually agreed to in writing by MDEQ and U.S. Technology.

P. Upon commencement of operations at the site, U.S. Technology shall submit to MDEQ a monthly report within 30 days of the end of each month covering the following:

1. Monthly and cumulative volumes of materials recovered.

2. Monthly and cumulative volumes of materials determined to be recyclable.

3. Monthly and cumulative volumes and disposition of materials determined to be non-recyclable.

4. Monthly and cumulative volumes of reconstituted materials held onsite in dry storage, pending shipment to the designated manufacturing facility.

5. Monthly and cumulative volumes of reconstituted materials shipped to the designated manufacturing facility.

6. Monthly and cumulative number of blocks manufactured for bank stabilization projects and the final destination of these blocks.

7. Sampling results for the non-recyclable materials.

Q. Upon recovery of materials from the site, U.S. Technology shall sample and analyze the surrounding horizontal and vertical soil matrix and over-excavate until residual levels do not exceed TCLP concentrations of 1.0 mg/l for Cadmium, 5.0 mg/l for Chromium, and 5.0 mg/l for Lead. U.S. Technology may analyze for total concentrations of each constituent and use the appropriate conversion factor to determine compliance with the TCLP concentrations. The sampling results shall be provided to MDEQ, and MDEQ may take split samples. U.S. Technology shall dispose of the over-excavated soil as approved by MDEQ.

R. Within 60 days of completion of over-excavation of the soil,

U.S. Technology shall install an appropriate number of onsite groundwater monitoring wells. The number, locations, and depths of these wells will be determined by MDEQ. Existing wells (if any) from prior onsite operations and determined by MDEQ to be functional will substitute for new wells.

S. Once quarterly for a minimum of four (4) successive quarters, U.S. Technology shall take and analyze samples from the groundwater monitoring wells and submit the analytical results to MDEQ. The number of quarterly groundwater sampling events in excess of the first four (4) will be determined by MDEQ. Two weeks prior to each sampling event, U.S. Technology shall notify MDEQ of the sampling date and time. MDEQ may observe U.S. Technology's collecting of the samples and may take split samples. The first quarterly groundwater sampling event shall be conducted within fourteen (14) days of the installation of the groundwater monitoring wells.

T. Within ninety (90) days of the final groundwater sampling event, U.S. Technology shall prepare and submit to MDEQ a Final Report including the following:

1. Total volume of materials recovered.

2. Total volume of materials determined to be

recyclable and shipped to the designated manufacturing facility after onsite reconstitution and temporary storage.

3. Number and final destination of blocks manufactured for bank stabilization projects.

4. Total volume and disposition of materials determined to be non-recyclable.

5. Total volume and disposition of soil removed from the zones surrounding the recovered materials necessary to yield residual, in situ chemical concentrations not to exceed 'TCLP' concentrations of 1.0 mg/l for Cadmium, 5.0 mg/l for Chromium, and 5.0 mg/l for Lead. U.S. Technology may analyze for total concentrations of each constituent and use the appropriate conversion factor to determine compliance with the TCLP concentrations.

6 All sampling and analytical data including QA/QC.

7. Closure summary of the site.

U. If the groundwater sampling results indicate that groundwater concentrations of Cadmium or Chromium are above Maximum Contaminant Levels (MCLs) of 0.005mg/l and 0.1 mg/l, respectively, then within six (6) months of MDEQ's

approval of U.S. Technology's Final Report, U.S. Technology shall prepare and submit a Post-Closure Plan for approval by MDEQ. The Post-Closure Plan shall set out U.S. Technology's plan to bring groundwater levels into compliance or shall demonstrate that groundwater concentrations above MCLs will not migrate off-site. The Post-Closure Plan shall also provide for additional groundwater monitoring until it meets MCLs. Upon approval by MDEQ of U.S. Technology's Post-Closure Plan, U.S. Technology shall carry out the Post-Closure Plan at its expense.

V. After the approval of U.S. Technology's Final Report or, if a Post-Closure Plan is necessary, after the completion of activities required by the Post-Closure Plan, MDEQ will issue an appropriate determination that no further corrective action on the property is required at that time. If cleanup standards change or additional data becomes available related to the property, then MDEQ will notify the appropriate parties of the need for any additional investigations or remedial actions. These actions will be consistent with MDEQ's need to protect human health, welfare, and the environment.

W. U.S. Technology shall have two (2) calendar years, from the

date of the MDEQ Notice to Proceed, to complete the processes of materials recovery, onsite reconstitution, shipment of the recyclable materials to the designated manufacturing facility, disposal of the non-recyclable materials, over-excavation of the soil, and disposal of the over-excavated soil.

X. Upon failure, within the two-year period of performance, to complete the processes of materials recovery, onsite reconstitution, shipment of the recyclable materials to the designated manufacturing facility, disposal of the non-recyclable materials, over-excavation of the soil, and disposal of the over-excavated soil, U.S. Technology shall pay a stipulated penalty of $5,000 per calendar week until such time as all of these specific obligations are met.

Y. If a natural disaster occurs, such as a hurricane, tornado, or flood, after mobilization at the site begins, thus interrupting or preventing operations, MDEQ and U.S. Technology will adjust the time of performance accordingly.

Z. All activities undertaken at the site by U.S. Technology or anyone acting on behalf of U.S. Technology (including, but not limited to, a disclosed agent, undisclosed agent, employee, or independent contractor) must conform to this Agreed Order

Amendment and to the Site Remediation Plan and, if it becomes necessary, the Post-Closure Plan, after such plans have been approved by MDEQ. Any deviation from this Agreed Order Amendment, the Site Remediation Plan, or the Post-Closure Plan must be approved in advance in writing by MDEQ on behalf of the Commission.

AA. All activities undertaken at the site by U.S. Technology or anyone acting on behalf of U.S. Technology (including, but not limited to, a disclosed agent, undisclosed agent, employee, or independent contractor) must comply with all federal, state, and local environmental laws and permits applicable to activities at the site.

BB. U.S. Technology shall pay all necessary and reasonable costs of MDEQ's actions associated with MDEQ's administration and evaluation of the site in accordance with Mississippi Commission on Environmental Quality Agreed Order Number 5611-09, attached hereto as Exhibit "B," issued July 23, 2009, and any amendments thereto.

4.

Paragraph 10. of the above referenced Agreed Order shall be replaced with the following amended text:

10. The execution of this Agreed Order Amendment by U.S. Technology

constitutes U.S. Technology's commitment to remediate the site to clean closure. The failure to honor that commitment, the modification of the process used at the site from that approved by this Agreed Order Amendment and prescribed in the above referenced Site Remediation Plan without prior approval of the Commission, or any other violation of the provisions of this Agreed Order Amendment shall subject U.S. Technology to penalties of up to $25,000 per day per violation pursuant to Mississippi Code Annotated section 49-17-43(1).

5.

All other provisions of Agreed Order Number 4614-03 remain unchanged, including Exhibit "1" (Mississippi Commission on Environmental Quality Order Number 4510-02), which remains a part of and incorporated within Agreed Order Number 4614-03.

6.

U.S. Technology understands and acknowledges that it is entitled to an evidentiary hearing before the Commission pursuant to Mississippi Code Annotated section 49-17-31, and that it has made an informed waiver of that right.

ORDERED, this the 28 day of February, 2011.

FOR: MISSISSIPPI COMMISSION ON ENVIRONMENTAL QUALITY

BY: _____

TRUDY D. FISHER
EXECUTIVE DIRECTOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

AGREED, this the 24th day of February, 2011.

FOR: U.S. TECHNOLOGY CORPORATION

BY (SIGNATURE): _____

PRINTED NAME: Raymond E. Williams

TITLE: President

STATE OF Nevada

COUNTY OF Clark

Personally appeared before me, the undersigned authority in and for the jurisdiction aforesaid, the within named Raymond Williams, who acknowledged that he/she is the President (title) of U.S. Technology Corporation and that he/she is authorized to sign this agreement and to enter into this agreement on behalf of U.S. Technology Corporation.

SWORN TO AND SUBSCRIBED BEFORE ME, this the 24 day of February 2011.

NOTARY PUBLIC

My Commission Expires:

January 5, 2015

DESIREE PALMER
Notary Public-State of Nevada
APPT. NO. 11-3805-1
My App. Expires January 05, 2015

AFID 17593
ENF10040002

BCED

BEFORE THE COMMISSION ON ENVIRONMENTAL QUALITY

In The Matter Of: Recycling Activities of U.S. Technology Corporation at Hydromex, Inc., Yazoo City, Mississippi

ORDER NO. 4614 03

JUL 17 2003

AGREED ORDER

COME NOW the Mississippi Commission on Environmental Quality ("Commission") and U.S. Technology Corporation ("U.S. Technology") in the above-captioned cause and agree as follows:

1. Hydromex, Inc., located at 800 Industrial Parkway, Yazoo City, Mississippi, 39194, ("Hydromex") currently is under a cease and desist order issued by the Commission, Order No. 4510-02 (November 14, 2002). A copy of that Order is attached to this Agreed Order as Exhibit 1.

2. U.S. Technology, whose main office is located at 1446 W. Tuscarawas St., Canton, Ohio, 44702, shipped to Hydromex much of the spent abrasive blast material that has been received at and handled by Hydromex. According to information provided to the Mississippi Department of Environmental Quality ("MDEQ"), all material received by Hydromex was to be either nonhazardous or was to be handled and recycled in such a manner as to qualify the material for the "recycling exclusion" from the definition of solid waste contained in 40 C.F.R. § 261.2(e). Information received and collected by MDEQ indicates that, instead, much of the material received and handled by Hydromex was handled in an improper manner, including, but not limited to, the failure to process

EXHIBIT A

material and processing that does not constitute proper recycling under 40 C.F.R. ' 261 2(e). Much of this material remains at the Hydromex facility in drums and other containers (collectively, the "containerized material") and in trenches and in the form of processed blocks and ground pads (collectively, the "inadequately or improperly recycled material"). Pursuant to Commission Order No. 4510-02 issued against Hydromex, the Commission considers all of this material in its current condition or status to be solid or hazardous waste subject to regulation by Subtitles D and C of the Resource Conservation and Recovery Act, 42 U.S.C. ' 6901 *et seq.*, the regulations promulgated thereunder, Miss. Code Ann. ' 17-17-1 *et seq.*, Miss. Code Ann. ' 49-17-1 *et seq.*, and the Mississippi Hazardous Waste Management Regulations (Regulation HW-1). Hydromex has preserved the right to contest this decision by requesting a formal evidentiary hearing regarding Commission Order No. 4510-02, but Hydromex has not requested that this hearing be scheduled, because the company does not plan to reopen or continue operations at the facility. Thus, Commission Order No. 4510-02 remains in full force and effect with regard to Hydromex.[1]

3. U.S. Technology now seeks permission from the Commission to conduct operations at the Hydromex facility to recycle and remove the containerized material and the inadequately or improperly recycled material located at the Hydromex facility. U.S. Technology has submitted to MDEQ and to the Mississippi Environmental Quality Permit Board (Permit Board) (as part of an

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1 U.S. Technology does not, by entering into this Agreed Order, admit or deny that the material at the Hydromex site is a solid or hazardous waste or that previous handling of the material by Hydromex has or has not met the criteria of 40 C.F.R. § 261.2(e). The Commission's view of the status of the material is set forth in this Order and more fully in the letter from MDEQ's General Counsel, Chuck D. Barlow, to Todd Anderson, Legal Counsel for the Ohio Environmental Protection Agency, dated December 23, 2002, a copy of which is attached to this Order. The recitation of facts and legal positions in this Agreed Order is not intended to bind either party as a final finding of fact or conclusion of law, but is provided for informational purposes. The parties agree and understand that the commitments to action made by U.S. Technology in this Agreed Order are binding commitments to the Commission.

application for a stormwater pollution control permit necessary for the proposed activities at the site) a comprehensive plan describing how U.S. Technology proposes to handle the containerized material and the inadequately or improperly recycled material at the Hydromex site in a manner that will render the material nonhazardous, will satisfy the provisions of 40 C.F.R. ' 261.2(e) and the parallel Mississippi regulation, HW-1 Part 261, as these regulations apply to the containerized and inadequately or improperly recycled material, and will accomplish the removal of both the containerized material and the inadequately or improperly recycled material from the Hydromex facility.

4 The Commission defers to the Permit Board regarding any decision on the issuance of a storm water pollution control permit or any other permits necessary for this operation, pursuant to the authority of the Permit Board stated in Miss. Code Ann. ' ' 49-17-28 and 49-17-29.

5. The Commission, however, now enters this Agreed Order and agrees with U.S. Technology that, within the context of the enforcement action begun by the Commission by the issuance of Order No. 4510-02 against Hydromex, U.S. Technology may carry out the operations described in its application for a storm water pollution control permit, attached to this Agreed Order as Exhibit 2, under the following conditions:

A. All activities undertaken at the Hydromex facility by U.S. Technology or anyone acting on behalf of U.S. Technology (including, but not limited to, a disclosed agent, undisclosed agent, employee, or independent contractor) must conform to the operations plan submitted to MDEQ and to the Permit Board as part of U.S. Technology's storm water pollution control permit application and attached to this Agreed Order as Exhibit 2. Any deviation

from this plan must be approved in advance by the Commission and, if the deviation constitutes a deviation from permitted activities, the deviation must be approved as a modification of this permit by the Permit Board.

B. All activities undertaken at the Hydromex facility by U.S. Technology or anyone acting on behalf of U.S. Technology (including, but not limited to, a disclosed agent, undisclosed agent, employee, or independent contractor) must comply with all federal, state, and local environmental laws and permits applicable to activities at the Hydromex facility. The treatment and/or recycling of material, including hazardous waste, if any, at the Hydromex facility in the form of the containerized or inadequately or improperly recycled material strictly as allowed in this Agreed Order will not require the issuance of a hazardous waste management permit because the activities are being taken pursuant to this Agreed Order, and duplicative permitting would, therefore, "cause undue or unreasonable hardship" to U.S Technology pursuant to Miss. Code Ann. ' 17-17-27(5). If such permitting were deemed applicable or necessary, then by this Agreed Order, U.S. Technology is granted a variance from the requirement of gaining a hazardous waste management permit for activities at the site approved by this Agreed Order for a period of one year from the date of onset of U.S. Technology's operations at the Hydromex facility. This variance may be extended for an additional period of up to one year, at the sole discretion of the Commission, upon application by U.S. Technology and after an opportunity is provided for public

comment pursuant to Miss. Code Ann. ' 17-17-27(5).

C. U.S. Technology agrees to pay the Commission up to $20,000 in reimbursement of costs the Commission may incur in contracting with an environmental professional to provide a Commission on-site presence and oversight at the recycling operation. U.S. Technology will be required to reimburse only actual costs invoiced to or expended by the Commission or MDEQ.

D. Within seven days of the beginning of block production at the Hydromex facility, U.S. Technology will conduct representative sampling and analysis of the blocks produced sufficient to demonstrate that the blocks produced meet ASTM Standard C90 (strength requirements for materials used in the construction of load-bearing walls) and do not exceed RCRA land disposal restrictions for chromium of 0.60 mg/L as TCLP or for Cadmium of 0.11 mg/L as TCLP. U.S. Technology will report the results of this analysis to the Commission within five days of U.S. Technology's receipt of the analysis results, but in no case later than thirty days after the samples are collected. No blocks for which representative sampling indicates a failure of these strength standards or land disposal restrictions and conditions shall be removed from the site without additional MDEQ approval, and blocks for which representative sampling indicates a failure of land disposal restrictions must be stored and handled on site as hazardous waste and shall not be stored on or in contact with the land.

E. Subsequent to the testing and reporting required by paragraph 5(D), above, U.S. Technology will perform one TCLP test per week on a produced block analyzed at least for chromium and for cadmium and will report the results of all such tests to the Commission within five days of U.S. Technology's receipt of the analysis results, but in no case later than thirty days after the samples are collected. No produced blocks for which representative sampling indicates a failure of the land disposal restrictions shall be removed from the site without additional MDEQ approval, and blocks for which representative sampling indicates a failure of land disposal restrictions must be stored and handled on site as hazardous waste and shall not be stored on or in contact with the land.

F. After block production begins at the Hydromex site, U.S. Technology will submit a report to the Commission on the first day of each month stating the number of blocks produced during the previous month at the site, the number of blocks stored at the site as of the date of the report, the number of blocks moved offsite from the Hydromex facility during the previous month and the destination of those blocks, the number of blocks stored at the Hydromex facility as of the date of the report that are under contract to be delivered to a purchaser (along with the name and location of the purchaser(s) and the expected date of delivery to the purchaser), and the number of blocks stored at the facility as of the date of the report that are not under contract to be delivered to a purchaser. Nothing in this Agreed Order shall limit the

Commission's authority to issue an additional Order prohibiting the production of additional blocks until the blocks already on site at a given time are delivered to a purchaser.

6. This Agreed Order does not provide legal site access to the Hydromex facility for U.S. Technology. U.S. Technology must obtain legal site access to the Hydromex facility and the legal right to conduct these operations at the facility from all owners and, to the extent required by any lease, easement, or other property interest, from the holder of that lease, easement, or property interest, prior to commencing any activity at the site.

7. Nothing in this Agreed Order shall limit the rights of MDEQ or the Commission in the event Respondent fails to comply with this Agreed Order. The Agreed Order shall be strictly construed to apply only to those matters expressly discussed herein. This Agreed Order does not permit the acceptance of any waste or of any additional spent abrasive blasting material (whether or not categorized as a waste) by any party at the Hydromex site. The acceptance, storage, treatment, or release of any material not already located at the Hydromex site on the date of execution of this Agreed Order by the Executive Director and not allowed by this Agreed Order is prohibited.

8. Nothing contained in this Agreed Order shall limit the rights of the Commission to take enforcement or other actions against U.S. Technology or Hydromex for past, present, or future violations of environmental laws, rules, and regulations or for the creation or exacerbation of any pollution or contamination at the Hydromex facility. This Agreed Order does not constitute a settlement or compromise of any right, authority, or allegation of the Commission. This Agreed Order does not address fines, penalties, other sanctions, further removal or remedial actions or future violations of environmental laws or regulations. Nothing contained in this Agreed Order shall limit

the rights of MDEQ or the Commission to take enforc S. Technology, Hydromex, or any other party. Likewise, noth or the entry into this Agreed Order, shall constitute any adm S Technology, notwithstanding any other provision herein.

9. This Order does not constitute an agreement resolving any party's liability to the United States or to the State of Mississippi pursuant to 42 U.S.C. ' 9613(f)(2) (CERCLA ' 113(f)(2)).

10. The execution of this Agreed Order by U.S. Technology constitutes U.S. Technology's commitment to carry out and complete the removal of all containerized material and inadequately or improperly recycled material at the Hydromex site in the manner proposed in Exhibit 2 to this Agreed Order. The failure to honor that commitment, the modification of the process used at the Hydromex facility from that approved by this Agreed Order without prior approval of the Commission (including, but not limited to, a change in the ratio of cement and other binding agents to spent abrasive material to be used in the production of blocks), or any other violation of the provisions of this Agreed Order will subject U.S. Technology to penalties of up to $25,000 per day per violation pursuant to Miss. Code Ann. ' 49-17-43.

SO ORDERED, this the 18th day of July, 2003.

MISSISSIPPI COMMISSION ON
ENVIRONMENTAL QUALITY

BY: Charles Chisolm
CHARLES H. CHISOLM
EXECUTIVE DIRECTOR
MISSISSIPPI DEPARTMENT

OF ENVIRONMENTAL QUALITY

AGREED, this the 15 day of July, 2003

BY: [signature]

TITLE: President

STATE OF Ohio

COUNTY OF Stark

PERSONALLY appeared before me, the undersigned authority in and for the jurisdiction aforesaid, the within named Raymond E Williams who, first being duly sworn, did state upon his/her oath and acknowledge to me that he/she is the President of U.S. Technology Corporation and is authorized by that Corporation to sign this Agreement.

SWORN TO AND SUBSCRIBED BEFORE ME, this the 15 day of July, 2003.

NOTARY PUBLIC [signature]

MCE 5/4/05

BEFORE THE MISSISSIPPI COMMISSION ON ENVIRONMENTAL QUALITY

MISSISSIPPI COMMISSION ON ENVIRONMENTAL QUALITY 4510 02

VS.

ORDER NO._____

Hydromex, Inc.
800 Industrial Parkway
Yazoo City, Mississippi 39194

ORDER

The above captioned matter came before the Executive Director of the Mississippi Department of Environmental Quality ("MDEQ") this day for consideration under the authority of Miss. Code Ann. § 49-2-13(j), and the Executive Director, having received information through multiple MDEQ inspections and having determined that an administrative order should issue prior to any evidentiary hearing and without making any final adjudication of fact or law, and acting on behalf of the Mississippi Commission on Environmental Quality ("Commission"), finds as follows:

1. Hydromex, Inc. ("Hydromex") is an industrial operation located at 800 Industrial Parkway in Yazoo City, Mississippi. Hydromex receives at its Yazoo City facility a spent abrasive blast material from multiple sources. The blast material matrix includes paint and other constituents removed from aircraft and other military equipment.

2. Analysis of samples of the blast material matrix taken by MDEQ indicate that a significant portion of the material is hazardous waste as defined by the federal Resource

EXHIBIT 1

Conservation and Recovery Act, 42 U.S.C. § 6901 et seq., federal regulations adopted thereunder, Miss. Code Ann. § 17-17-3(m), and the Mississippi Hazardous Waste Management Regulations. The hazardous waste is not being managed in such a way as to qualify it for the exemption from the definition of "solid waste" contained in 40 C.F.R. § 261.2(e) and the parallel Mississippi regulation, and is further defined as a solid waste pursuant to 40 C.F.R. § 261.2(c)(1) and the parallel Mississippi regulation, because all or part of the waste is not being used or reused in an industrial process to make a product, is being applied to or placed on the land in a manner constituting disposal, and is being used to produce products that are applied to or placed on the land or are otherwise contained in products that are applied to or placed on the land by methods that include, but are not limited to, the placement of the waste into trenches at the facility.

3. Thus, Hydromex is operating a hazardous waste treatment, storage, and disposal facility without the permit or permits required by federal and state law.

4. Additionally and alternatively, because the waste blast material matrix is being used in a manner constituting disposal, Hydromex is creating an "unauthorized dump" in violation of Miss. Code Ann. § 17-17-17, even for that portion of the waste blast material, if any, that is not hazardous waste. The creation of an unauthorized solid waste disposal facility is declared by that statute to be a "nuisance per se, menacing public health and unlawful."

5. WHEREFORE, PREMISES CONSIDERED, the Mississippi Commission on Environmental Quality hereby ORDERS, pursuant to Miss. Code Ann. §§ § 49-2-13(j), and 49-17-17(j) and (n), that Hydromex shall immediately cease and desist all acceptance, treatment, and disposal of spent abrasive blast material or any other hazardous or solid waste at its Yazoo

City, Mississippi location until further Order. Hydromex also shall not store any hazardous waste at this facility other than the waste already onsite on November 14, 2002. Additionally, any transportation of spent abrasive blast material currently at the Hydromex facility shall take place only in compliance with all applicable state and federal laws concerning the transportation of hazardous wastes, unless particular containers or discrete quantities of the waste are tested and determined to be nonhazardous, at which time those particular containers or discrete quantities may be transported in compliance with all applicable state and federal laws concerning the transportation of nonhazardous solid waste.

6. This Order does not address fines, penalties, other sanctions, further removal and/or remedial actions and/or future violations of environmental laws, rules and regulations. Nothing contained in this Order shall limit the rights of MDEQ or the Commission to take enforcement or other actions against Respondent for violations addressed herein, violations not addressed herein, fines, penalties, other sanctions, further removal and/or remedial actions and/or future violations of environmental laws, rules and regulations. The citation of violations in this Order does not necessarily constitute a complete list of violations now existing or which have existed in relation to the operation.

7. If aggrieved by this Order, Respondent may request a formal hearing in the manner provided by Miss. Code Ann. § 49-17-41 within thirty days of the execution of this Order. However, the request of a hearing does not postpone the actions that must be taken under this Order or relieve the Respondent from timely compliance with this Order.

8. Violation of the environmental laws and regulations of the State of Mississippi can subject Respondent to penalties up to $25,000 per day per violation. The failure to comply

with this order will be considered a continuing violation of those laws and regulations. Knowing and willful violation of the federal Resource Conservation and Recovery Act or the regulations promulgated thereunder can subject Respondent to federal criminal sanctions including incarceration and fines.

SO ORDERED, this the 14th day of November, 2002.

Mississippi Commission On Environmental Quality

By: _____
Charles Chisolm
Executive Director
Mississippi Department of Environmental Quality

BEFORE THE MISSISSIPPI COMMISSION ON ENVIRONMENTAL QUALITY

In re: Matter of
US Technology Corporation
1448 Tuscarawas St. West
Canton, OH 44702

Order No. 5611 09

The Mississippi Commission on Environmental Quality ("Commission"), the Mississippi Department of Environmental Quality ("MDEQ") and US Technology Corporation, ("UST") now enter the following agreement pursuant to the Uncontrolled Site Voluntary Evaluation Program ("Program") created in Miss. Code Ann. §17-17-54(2) (Supp. 1996), as follows:

1. UST is the former operator pursuant to an Agreed order at the former Hydromex site ("site") located at 700 South Industrial Parkway in Yazoo City, Mississippi. MDEQ has reason to believe that conditions which warrant oversight by MDEQ exist at the site. UST has transmitted information regarding these conditions in the form of final cleanup documents, dated May 27, 2009.

2. The site is an uncontrolled site within the purview of Miss. Code Ann. §17-17-54. UST desires to submit this site for participation in the Program. By this agreement, MDEQ accepts the site for participation in the Program.

3. UST agrees to the following terms and conditions of participation in the Program:

(a) UST will pay all costs of MDEQ's actions associated with MDEQ's administration and evaluation of the site. For the first twelve months in which this Agreed Order is effective, these costs will be calculated at the rate of $100.00 per hour for each hour of MDEQ staff or subcontractor time spent reviewing, assessing, investigating, reporting on, taking administrative action in regard to, analyzing or studying the site or the information and plans regarding the site submitted by UST, plus MDEQ's actual costs (above and beyond staff/subcontractor time) for obtaining and analyzing split samples and additional samples deemed necessary by MDEQ. Analytical costs will be charged as shown on the relevant schedule of analytical costs, found in Section 9 of this order. MDEQ reserves the right to increase or decrease the per-hour and analytical cost schedule at any time after the first twelve months in which this Agreed Order is effective. In case of such an increase or decrease, MDEQ will notify UST in writing of the new cost schedule, and the new cost schedule will become effective forty-five

EXHIBIT
B

days after the date of the written notice to UST. If UST determines to discontinue its participation in the Program for the site after a change by MDEQ in the per-hour and analytical cost schedule, UST may terminate its participation in the program as is stated in paragraph 8, below.

(b) MDEQ will send an invoice to UST on a monthly basis stating the program costs assigned to the site that have not been paid prior to the date of invoice by UST, and UST will pay that amount to MDEQ, for deposit into the Uncontrolled Site Evaluation Trust Fund ("Fund"), within 30 days following the invoice date.

(c) UST will be liable for the payment of all invoiced amounts described in subparagraph 3(b), above.

4. MDEQ will expedite review and evaluation of the investigative assessments, work plans, remedial investigation plans, scopes of work, and remediation design plans submitted by UST regarding the site.

5. This agreement is not entered in lieu of any penalty or enforcement action that MDEQ or the Commission may otherwise take in regard to the site or against UST. MDEQ and the Commission reserve the right to take any and all administrative and/or legal actions they deem necessary in regard to the site and/or against UST. This agreement does not represent the settlement or release of any liability of UST for any action, inaction or property condition. UST neither admits nor denies liability regarding the environmental condition of the site. MDEQ accepts no responsibility by entering this agreement for activity taken at the site or for the past, present or future condition of or contamination present at the site.

6. If any part of any amount invoiced to UST by MDEQ under this agreement is not paid within thirty days after the due date (sixty days after the date of the invoice), a penalty of up to twenty-five percent of the amount due may be imposed by further order of the Commission and added thereto pursuant to Miss. Code Ann. §17-17-54(4). If MDEQ is required to pursue legal action to collect fees incurred, reasonable attorneys' fees and costs may be assessed against the nonpaying party.

7. MDEQ may suspend immediately any activities or actions related to the administration or evaluation of the uncontrolled site or sites that are the subject of this agreement if UST fails to meet any condition or requirement of or violates any of the following: (1) This agreed order or any other order of the Commission pertaining to the site to be evaluated pursuant to this Agreed Order; (2) Miss. Code Ann. §17-17-54 (Supp. 1996); (3) any rule or regulation promulgated by the

Commission, or (4) any permit issued by the Mississippi Environmental Quality Permit Board.

8. Either UST or MDEQ may terminate this agreement upon thirty days prior written notice to the other party. The effective date of the termination will be the thirtieth day after receipt by either party of a written notification of termination. Within thirty days of the effective date of termination, MDEQ will deliver to UST an invoice for all work accomplished prior to the effective date of termination for which UST previously has not remitted payment. UST will pay the invoice amount to MDEQ, for deposit into the Uncontrolled Site Evaluation Trust Fund ("Fund"), within 30 days following the invoice date. As of the effective date of termination, MDEQ will cease the expedited review of the site, and MDEQ thereafter will determine whether and when to resume review of site information within the normal time frame of the MDEQ uncontrolled sites program.

9. Schedule of Analytical Costs

Analytical Parameters	Price per Sample
Heavy Metals – Full Scan	$ 360
Heavy Metals – Individual	$ 40
Volatile Organic Compounds	$ 225
BTEX	$ 80
Semi-Volatile Organic Compounds	$ 450
PAHs	$ 150
Pesticides	$ 275
Herbicides	$ 275
Dioxins	$ 1000
PCBs	$ 125
TCLP Metals	$ 260
TCLP VOCs	$ 175
TCLP SVOCs	$ 340
TCLP Pesticides	$ 140
TCLP Herbicides	$ 150
TPH-GRO	$ 90
TPH-DRO	$ 125
COMPOUNDS - NOT LISTED	**

** For those compounds that are not listed, the price will be negotiated on a site-specific basis.

SO AGREED AND ORDERED, this the 23 day of July, 2009.

Trudy Fisher
Executive Director
Mississippi Commission on
Environmental Quality

AGREED, this the 9th day of July, 2009.

BY: _____

TITLE: Raymond Williams, President
US Technology Corporation

STATE OF Ohio

COUNTY OF Stark

PERSONALLY appeared before me, the undersigned authority in and for the jurisdiction aforesaid, the within named Raymond Williams who first being duly sworn, did state upon his/her oath and acknowledge to me that he/she is the President of US Technology Corporation and is authorized by that Corporation to sign this Agreement and to enter this Agreement on behalf of US Technology.

SWORN TO AND SUBSCRIBED BEFORE ME, this the 9th day of July, 2009.

NOTARY PUBLIC

MY COMMISSION EXPIRES:
July 28, 2013

NOTARIAL SEAL STATE OF OHIO

JILL L. ALDRIDGE
Notary Public, State of Ohio
My Commission Expires 7-28-13

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-308 DB **CODE: (SP)**

DATE: **09/13/2011**

SUBJECT: **Portland Cement Treated Courses**

Section 308, Portland Cement Treated Courses, of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

907-308.02.4—Curing Seals. After "EA-1," in the first sentence of Subsection 308.02.4 on page 204, add "AE-P,".

907-308.02.5—Soil-Cement Design. Delete in toto and substitute the following:

The design of soil-cement courses shall be performed by the Contractor's Laboratory and reviewed by MDOT's Central Laboratory. At least 21 days prior to the proposed use of a cement course, the Contractor shall make available materials proposed for use in the mixture for sampling and testing by MDOT as the Engineer may consider necessary for the verification of a mix design.

907-308.03.2—Equipment.

907-308.03.2.1--General. Delete the second paragraph of Subsection 308.03.2.1 on page 206.

Delete Subsection 308.03.7.2 on page 209 and substitute the following:

907-308.03.7.2--Weather Limitations. No cement or cement treated material shall be applied or placed when the temperature is below 45°F nor when the Engineer determines, based on the latest information available from the National Weather Service, that the forecast temperature will fall below 45°F within the next five (5) days in the area in which the Project is located. No cement or cement treated material shall be placed on a frozen foundation or mixed with frozen material.

907-308.03.9.2--Density. Delete the second paragraph of Subsection 308.03.9.2 on page 213 and substitute the following:

Soil Cement Treatment of Subgrade. The lot will be divided into five (5) approximately equal sublots with one (1) density test taken at random in each sublot. The average of the five (5) density tests shall equal or exceed 96.0% with no single density test below 94.0%. Sublots with a density below 94.0% shall be corrected and retested for acceptance.

Each lot of work found not to meet the density requirement of 96.0% of maximum density shall be evaluated by the Lead Design Engineer for suitability.

EXHIBIT B

Soil Cement Treatment of Base. The lot will be divided into five (5) approximately equal sublots with one (1) density test taken at random in each sublot. The average of the five (5) density tests shall equal or exceed 97.0% with no single density test below 95.0%. Sublots with a density below 95.0% shall be corrected and retested for acceptance.

Each lot of work found not to meet the density requirement of 97.0% of maximum density shall be evaluated by the Lead Design Engineer for suitability.

Soil Cement Treatment of Irregular Areas. Density of irregular areas shall be rolled to highest stability. Irregular areas shall be defined as preleveling, wedging [less than 50% of width greater than minimum lift thickness], ramp pads, irregular shoulder areas, median crossovers, turnouts, and other areas where an established rolling pattern cannot be obtained.

907-308.03.10--Protection and Curing. Delete the second paragraph of Subsection 308.03.10 on page 213 and substitute the following:

When the treated course is the subgrade, a subsequent course shall not be placed on the sealed course for at least seven (7) calendar days. During this seven (7)-day period, the treated course shall not be subjected to any type of traffic and equipment.

When the treated course is the base, the Contractor shall use the mix design (seven (7)-day or 14-day) as specified on the Mix Design. Depending on the specified mix design, a subsequent course shall not be placed on the sealed course for at least seven (7) or 14 calendar days. During this period, the treated course shall not be subjected to any type of traffic and equipment.

Delete Subsections 308.04 and 308.05 on pages 214 and 215 and substitute the following:

907-308.04--Blank.

907-308.05--Blank.

Mississippi
Standard Specifications
For
Road And Bridge
Construction

No. _____

Approved and Adopted

By

The Mississippi
Transportation Commission
Jackson

February 24, 2004

SECTION 308 - PORTLAND CEMENT TREATED COURSES

308.01--Description. This work consists of constructing one or more courses of a mixture of cement, soil or soil aggregate, and water in accordance with these specifications and in reasonably close conformity with the lines, grades, and typical cross sections shown on the plans or established by the Engineer.

308.02--Materials.

308.02.1--Materials to be Treated. The materials to be treated shall consist of materials in place or placed under this contract.

308.02.2--Water. Water shall conform to the requirements of Subsection 714.01.3.

308.02.3--Portland Cement. Cement shall conform to the requirements of Section 701.

When bulk cement is used, the Contractor shall provide means suitable to the Engineer for applying. The Engineer shall weigh shipments at random for verification of bulk cement quantities.

When bag cement is furnished, the bag shall bear the manufacturer's certified weight. Bags varying more than five percent from the certified weight will be rejected, and the average weight of bags in any shipment, determined by weighing 50 bags taken at random, shall not be less than the certified weight.

Cement shall be stored and handled in closed, weatherproof containers until distribution to the section of road being processed. If storage bins are used, they shall be completely enclosed.

308.02.4--Curing Seals. Curing seal shall be Emulsified Asphalt, Grade EA-1, SS-1, CMS-2h, or MS-2h meeting the applicable requirements of Section 702.

308.02.5--Soil-Cement Design. The design of soil-cement courses shall be performed by the Central Laboratory.

308.03--Construction Requirements.

308.03.1--General. The intent of these specifications is to provide for a cement treated course of designated thickness consisting of a uniform mixture of cement,

soil or soil aggregate, and water; constructed at the required moisture content to the required density; free of laminations, construction cracks, ridges, or loose material; and with a smooth, closely knit surface meeting the requirements set out in Section 321.

A course whose compacted thickness is designated to be more than eight inches, shall be constructed in two or more layers of approximately equal thickness. The maximum compacted thickness of any one layer shall not exceed eight inches.

Immediately prior to placement of a course to be cement treated on an in place cement treated course, the in place course shall be thoroughly moistened.

Except as necessary to provide the required curing and maintenance of traffic, all equipment and traffic shall be kept off each completed cement treated course until it is thoroughly cured. Unless otherwise specified, the curing period shall be seven days exclusive of days during which the temperature falls below 35°F.

Prior to joining a previous day's work, or work more than two hours old, a vertical construction joint, normal to the centerline of the roadbed, shall be made in the old work. The joint shall be moistened if dry. Additional processing shall not be started until the construction joint has been approved by the Engineer.

When vertical longitudinal joints are specified or permitted, the joints shall be constructed parallel to the centerline by cutting into the existing edge for a sufficient distance to provide a vertical face for the depth of the course. The material cut away may be disposed of by spreading in a thin layer on the adjacent lane to be constructed, or otherwise disposed of in a satisfactory manner. If dry, cut joints shall be moistened immediately in advance of placing fresh mixture adjacent to them.

On multi-lane construction, the Contractor may construct temporary crossovers at locations approved by the Engineer between roadway lanes to facilitate construction operations. The crossovers shall be built, removed, the median restored to section, and all erosion control items completed in accordance with the requirements of the specifications without extra cost to the State.

The first section of each cement treated course constructed will serve as a test section. The length of the test section will be determined by the capability of the equipment provided to perform the work, but not less than 350 linear feet nor more than 500 linear feet for the designated width. The Engineer and the Contractor will evaluate results of the test section in relation to contract requirements. In case the Engineer determines the work is not satisfactory, the Contractor's procedures shall be revised and augment or replace equipment as necessary to assure work completed in accordance with the contract, and shall correct all deficient work at no additional cost to the State.

308.03.2--Equipment.

308.03.2.1--General. Equipment necessary for the proper prosecution of the work shall be on the project and approved by the Engineer prior to its use.

When bulk cement is used and application of cement is made from equipment other than the delivery transport, batch-type or platform scales meeting the requirements of Subsection 401.03.2.1.11, respectively, shall be provided at approved locations on or near the project.

Approval of cement spreaders will be contingent upon their known or demonstrated ability to make distribution of cement within allowable tolerances.

Watering equipment shall be pressurized, have one or more spray bars with suitable nozzle openings, and have positive controls for applying varying quantities of water.

Mixing shall be performed with multiple pass mixers, single pass mixers, traveling mixing plants, or central mixing plants, as specified in the contract.

Mixing and scarifying equipment for the road mix methods shall be capable of positive depth control.

Rollers shall be of sufficient number, type, size, and weight to accomplish the required compaction.

Leakage of water, oil, grease, or other liquids from equipment shall be immediately corrected, or the leaking equipment removed from the work and replaced with satisfactory equipment.

308.03.2.2--Multiple Pass Mixers. Multiple pass mixers shall be the rotary-type with sufficient tines and so constructed and operable as to obtain by multiple passes uniform mixture of the cement, soil-aggregate, and water for the full depth of the course.

308.03.2.3--Single Pass Mixers. Single pass mixers shall be the pugmill type so constructed and operable as to meter the required quantity of water through a pressurized spray and obtain by a single pass a uniform mixture of the cement, soil or soil-aggregate, and water for the full depth of the course.

308.03.2.4--Traveling Plant Mixers. Traveling mixing plants shall be either of the type which will pulverize the material to be treated and mix it and cement with the proper quantity of water without picking the materials up from the roadway, or of the pugmill type which elevates the materials into a pugmill for mixing. The plant shall be equipped with a device which will accurately control and measure the quantity of water used. Worn scarifying and mixing parts shall

be replaced, and extra parts shall be available for replacements.

308.03.2.5--Central Plant Mixers. Central mixing plants shall be either the batch type using revolving blade or rotary drum mixers or the continuous mixing type. The cement, soil or soil-aggregate, and water may be proportioned either by weight or by volume. There shall be means by which the Engineer can readily verify the proportions in each batch or the rate of flow for continuous mixing.

The charge and mixing time in a batch mixer, or the rate of feed to a continuous mixer, shall be such as to obtain complete mixing of all the material. Dead areas in the mixer, in which the material does not move or is not sufficiently agitated, shall be corrected. The plant shall deliver a uniform mixture meeting all specified requirements.

308.03.3--Road Mix Method. When the road mix method is used, no hauling of materials for a subsequent course will be permitted directly on a completed cement treated course. Placing of material for a higher course shall be accomplished as outlined in Subsection 321.03. Materials for a higher course shall be kept bladed down as it is placed, and hauled over with truck traffic being distributed over its entire width.

Where reconstruction is required, it shall be for the full depth and width of the deficient section. The adding of a thin layer or strip of cement treated material will not be permitted. All sections to be reconstructed later than the two-hour period allowed for initial compaction shall have additional cement. When reconstruction is to be performed within 48 hours after the initial application of cement, 50 percent of the original quantity of cement shall be added. When reconstruction is to be later than 48 hours after the initial application of cement, an engineering study will be made, and the Engineer will specify the additional quantity of cement to be added, or the Engineer may require the total removal of the deficient work. If removal is required, a course meeting the requirements of the contract shall be constructed with new materials.

In all cases where reconstruction is performed by the addition of cement, the cement, in place materials, and water shall be thoroughly mixed, processed, compacted, and finished in accordance with the requirements of the contract.

Where deficient work is removed, the removal and disposal shall be performed in a manner satisfactory to the Engineer, and all materials shall be replaced and a new course constructed in accordance with the requirements of the contract.
The furnishing of all materials for and all reconstruction shall be performed by the Contractor at no additional cost to the State.

308.03.4--Central Plant Mix Method. When the central plant mix method is used, material for a higher course may be hauled directly on a completed and

properly cured cement treated course for the minimum distance necessary as referenced in Subsection 321.03. The Contractor shall be fully responsible for all damages to the course.

Prior to placement of a course processed by the plant mix method, the Contractor shall have made satisfactory provisions for completing the section to specified requirements. To comply with these requirements, the Contractor shall, if necessary, use material(s) specified for contiguous shoulder construction.

The mixture shall be hauled to the roadway in trucks equipped with protective covers. The mixture shall be uniformly placed on a moistened foundation by full-width spreader, or partial-width spreaders working in echelon and spaced close enough together to place the entire course in one operation. The elapsed time between the start of moist mixing and the start of compaction on the roadway shall not exceed 60 minutes. The elapsed time between placement of cement treated material in adjacent lanes shall not exceed 30 minutes, except where longitudinal construction joints are specified, or when joints are permitted by the Engineer in case of emergency. In the latter case longitudinal joints conforming to the requirements of these specifications will be permitted only to allow placement of material in transit at the time of the emergency.

The material shall be placed, shaped, and compacted so that the completed course will be uniform, smooth, and conform to all of the requirements specified.

Dumping of the mixture in piles or windrows and spreading with a motor grader or similar equipment will not be permitted except where the Engineer determines that such spreading is reasonable, as in the case of small areas inaccessible to mechanical spreaders.

In all cases where reconstruction is required, the deficient work shall be removed, disposed of, and replaced with materials meeting the requirements of these specifications. Reconstruction shall be for the full depth and width of the deficient section, except where the Engineer determines that partial reconstruction will be sufficient, the Engineer may authorize in writing that reconstruction may be made on the defined partial section in accordance with the provisions and requirements for reconstruction under Subsection 308.03.3 at no additional cost to the State.

308.03.5--Preparation of Grade. Prior to construction or reconstruction, the foundation shall be prepared in accordance with the requirements of Section 321. The tolerance from design grade immediately prior to spreading cement shall be minus one inch for design soils and plus or minus one-half inch for bases.

308.03.6--Preparation of Materials. Particles of aggregates larger than those passing a three-inch sieve and deleterious substances, such as roots, sticks, grass turfs, or other vegetable matter shall be removed.